



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

1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA

101 GAGAAAGTGGCGGGGTAACGGAAAGTGATGTCGTGACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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

201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACCGCGCCCGCCCTACCTGAGGCC

301 GCCATCCACGCGGTTGAGTGCCTGTTGCGCCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
NaeI (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGTCTTTGTTTCGTTT

KasI (535)
NcoI (560)

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGGCTACTCTGAGATCACCGGTCACCATGGCGGCAGCTGCAGCAGGACCTGCATCGTCCACGGC

1▶ M A A A A A G P A S S Q R

BamHI (636)
BstXI (665) **BspEI (684)**

601 GCTTTTCCAGAGCTTCTCAGATGCTCTGATCGACGGGATCCCGAGGAGCTGACCAAGGCCTTGAACAGAAATCCGGATGACGCACAG

13▶ L F Q S F S D A L I D G D P Q A A L E E L T K A L E Q N P D D A Q

701 TATTACTGTCAGAGAGCTTATTGTCACATTCTTCTGGGAAATACCGTATGTTGCGCATGTAAAGAAGTCTTGAACCTCAATCCAAAATAATTGTA

47▶ Y Y C Q R A Y C H I L L G K Y R D G I A D V K K S L E L N P N N C

801 CTGCTCTTCTGAGGAAAGGATATGTGAATACCATGAAAAAGACTACGCTTCTGCCTTAGAAACATTTGCAGAGGGACAGAAATAGATAGTACAGATAC

80▶ T A L L R K G I C E Y H E K D Y A S A L E T F A E G Q K L D S T D T

BsaBI (944)
Tth111I (975)

901 CAATTTTGACACCTGGATTAAAAGATGCCAAGAAATTCAGAATGGATCAGAATCTGAAGTGTCTGCATCTCAGAGGACCCAGTCAAAAATCAAGTATGAC

113▶ N F D T W I K R C Q E I Q N G S E S E V S A S Q R T Q S K I K Y D

1001 TGGTATCAAACCGAGTCTCACGTAATCATCACCTTATGATCAAGAGCGTTTCAAGAAGATGATGTACGTGTGGGATTTTCAAGAGAGAGTGTCTGCTT

147▶ W Y Q T E S H V I I T L M I K S V Q K N D V R V G F S E R E L S A

BbsI (1120)
Scal (1182)

1101 TGGTAAAATTCCTGCTGGAGAAGACTACAGTTTGAAGCTGAGGCTGCCACCTATAATACCAGAACAGAGTACATTCAAAGTACTTTCAACAAAGAT

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

XmnI (1272)
BspLU11I

1201 TGAATTTAAAATGAAAAAGCCAGAGCGGTGAGATGGGAAAAGCTAGAGGGACAAGGAGATGAGCCACACCGAAACAGTTTACAGCAGATGTAAAGAAC

213▶ E I K M K K P E A V R W E K L E G Q G D E P T P K Q F T A D V K N

1301 ATGTATCCGTCCTCATCTCACTATACCCGGAAGTGGGATAAGTTGGTTGGCGAAATCAAAGAAGAAGAAAAGAACGAGAAGCTGGAGGGCGACGCAGCTT

247▶ M Y P S S S H Y T R N W D K L V G E I K E E E K N E K L E G D A A

BglIII (1418)

1401 TAAACAAGTTATTCAGCAGATCTACTCAGACGTTCCGATGAAGTGAACGTGCCATGAACAAGTCAATTTATGGAGTCTGGTGGTACAGTCTTGAGTAC

280▶ L N K L F Q Q I Y S D G S D E V K R A M N K S F M E S G G T V L S T

Scal (1565)

1501 CAACTGGTCTGATGTAGGTAAAAGGAAAGTTGAAATCAACCTCCCGATGATATGGAATGAAACAGTACTAAATAAATCAATTTGCTATCACTGATTG

313▶ N W S D V G K R K V E I N P P D D M E W K Q Y •

MscI (1609)
NheI (1603)

1601 CGTGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATG

HpaI (1741) **MfeI (1752)**

1701 CTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAACATTTGATTCTTTTATGTTTCAGGTTTCAGGGGAGGTGTGGAGGT

EcoRI (1837)

1801 TTTTAAAGCAAGTAAAACCTCTACAAATGTGGTATGGAATTTAAAATACAGCATAGCAAACCTTTAACCTCCAATCAAGCCTCTACTTGAATCCTTT

1901 TCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGAGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGTAT

SspI (2076) **Swal (2090)**

2001 TTTCCAAGGTTTGAAGTACTCTTCATTTCTTTATGTTTAAATGCACTGACCTCCACATTCCTTTTATGTAATAATTCAGAAAATAATTTAAATAC

2101 ATCATTGCAATGAAAATAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAA

2201 GGAACCTTAATAGAAATGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAG

141▶ • N R T Y K L P I L E E I T T K V L

SacI (2351)
BstXI (2380)

2301 CTTGCCATTCATCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGTCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCC

123▶ 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 S R D

2401 ACCTCATCAGAGTAGGGTCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAGCAGACAG

89▶ 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 A C V T

StuI (2515)

2501 TGACCCTGCAATGTAGGCTCAATGTGGACAGCAGAGATGATCTCCCGAGTCTTGGTCTGATGGCCGCCCGACATGGTGTCTGTTGCTCCTATAGAG

56▶ 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 D E Y L

BspHI (2665)
 BbsI (2661)
 XmnI (2657)

2601 CATGGTATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGCTTTCATGATGGCCCTCTATAGTGAGTCGTATTATAC
 234 M T I K E T A V E V L E L D Q Q S I N F T K M

AseI (2723)
SacI (2780)

2701 TATGCCGATATACTATGCCGATGATTAATTGTCAAACACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACATAACGAGCTCTGCTTATATAGAC

SpeI (2878)

2800 CTCCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAACAAACTCCC
 2899 ATTGACGTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCG

SnaBI (3006)

2999 ATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAG

NdeI (3111)

3099 GGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCGAGTTTACCGTAAATACTCCACCATTGACGTCAATGGAAAGTCCCTATTGGCGT

PstI (3290)
SdaI (3289)

3199 TACTATGGGAACATACGTCATTATTGACGTCAATGGGGGGGGTCTGGGGCGTCCAGGCGGGCCATTTACCGTAAAGTTATGTAACGCCTGCAGG

PacI (3297) BspLU11I (3307)

3298 TTAA TTAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCTTGTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAG
 3397 CATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGGCTCTCCTG
 3497 TTCCGACCCTGCCGTTACCGGATACCTGTCCGCCTTCTCCCTTCGGGAAGCGTGGCGCTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTGA

ApaLI (3621)

3597 GGTGCTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTACGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGA
 3697 CACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACG
 3797 GCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGC
 3897 TGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAG

EagI (4057)
 PacI (4037) SmaI (4046) **NotI (4056)**

3997 TGGAACGAAAACACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCCAATAAAATATCTTTATTTTTCATTACATCTGTG
 4097 TGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGTGCAAGTGCA
 4197 GGTGCCAGAACATTTCTCTATCGAA