



100

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

1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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

201 GTGAACGTTCTTTTTCGCAACGGGTTTGGCCGACAGTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCCCTACCTGAGGCC
 301 GCCATCCACGCGGTTGAGTGCAGTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
BspHI (560)

401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGTCTTTGTTTCGTTT
NaeI (441)

KasI (535)
AgeI (552)

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTCATCATGAAGTGCCTGTTTGTACCGTAGGGACCACCAGCTT
1▶ M K C V F V T V G T T S F

KasI (624)
Asp718I

601 TGACGACCTCATTGCGTGTGTGTCGGCGCCCGACAGTCTGCAAAAAATCGAGAGCCTTGGTTACAACCGACTTATCCTGCAAATTTGGTAGAGGAACGGTG
Acc65I

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

ScaI (715)
XmnI (766)

701 GTACCTGAACCCCTCAGTACTGAGTCGTTACTCTGGATGTTTACAGGTACAAGGATTCCTTAAAGAACGACATTCAGAAAGCAGATCTTGTATTAGTC
BglIII (783)

47▶ V P E P F S T E S F T L D V Y R Y K D S L K E D I Q K A D L V I S

PvuII (886)

801 ACGCAGGTGCAGGAAGCTGTTTGGAGACTCTGGAAAAAGGAAAGCCACTCGTAGTGGTATAAACGAAAGTTGATGAACAATCATCAGCTGGAACTGGC
PstI (939)

80▶ H A G A G S C L E T L E K G K P L V V V I N E K L M N N H Q L E L A

MscI (1002)
NheI (1095)

1001 CCTGGCCAGCCAGAAAAATTTTCTGCATTTTGGATAAAGTGTGGATTACAAAAATAAACACTAAACTCTCAACACTTTAAAGCAACCCCCAGCTAG
BstXI (1092)

147▶ P G Q P E K F S A F L D K V V G L Q K •

MscI (1101)

1101 CTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAAC TAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCT

HpaI (1233)
MfeI (1244)

1201 TTATTTGTAACCATTATAAGCTGCAATAACAAGTTAAACAACAACATTGCATTCATTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGTTTTTTAAA

EcoRI (1329)

1301 GCAAGTAAACCTCTACAAATGTGGTATGGAATTCTAAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGG
 1401 ATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTTAAAGATATAGTGTATTTCCCAA

SspI (1568)
SwaI (1582)

1501 GGTTTGAAGTACTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTATAGTAAATATTCAGAAATAATTTAAATACATCATTGC

EcoO109I (1643)

1601 AATGAAAAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTATAGTGTGGACTTAGGGAACAAGGAACCTT
 1701 TAATAGAAATTTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTACTTGGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCAT
141▶ • N R T Y K L P I L E E I T T K V L K G N

SacI (1843)
BstXI (1872)

1801 TCATCTCAATGAGCACAAGCAGTCAAGGAGCATAGTCAAGATGAGCTCTGTCATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATC
 120▶ 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 V E D
 1901 AGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAAGCAGACAGTGCACCTG
 87▶ 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 V R

StuI (2007)

2001 CCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCAAGTCTTGGTCTGATGGCCGCCCGACATGGTCTTGTGTCCTCATAGAGCATGGTGA
 53▶ 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 M T I

BspHI (2157)

2101 TCTTCTCAGTGGCGACCTCCACCAGTCCAGATCCTGCTGAGAGATGTTGAAGGCTTTCATGATGGCCCTCTATAGTGAATCGTATTATACTATGCCGA
BbsI (2153)
XmnI (2149)

20▶ K E T A V E V L E L D Q Q S I N F T K M

AseI (2215)
SacI (2272)

2201 TATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTCTACTAAACGAGCTCTGCTTATATAGACCTCCACCG

SpeI (2370)

2301 TACACGCTACCGCCATTTGCGTCAATGGGGCGAGTTGTTACGACATTTTGGAAAGTCCCGTGTATTACTAGTCAAAAACAACTCCCATTTGACGTC

2400 AATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAAT

2500 ACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGCATAATGCCAGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTAC

NdeI (2603)

2600 TTGGCATATGATACACTTGATGTACTGCCAAGTGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGG

PstI (2782)

SdaI (2781) PacI (2789)

2700 AACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTACGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCCCTGCAGGTTAA TTAA

BspLU11I (2799)

2798 GAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAA



2898 AATCGACGCTCAAGTCAGAGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGCGCTCTCTGTCCGACCC

2998 TGCCGCTTACCGGATACCTGTCCGCTTCTCCCTTCGGGAAGCGTGGCGCTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCG

ApaLI (3113)

3098 CTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTACGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTA

3198 TCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGTACACTA

3298 GAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAAACAAACCACCGCTGGTAGCGG

3398 TGGTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAA

EagI (3549)

PacI (3529) SmaI (3538) NotI (3548)

3498 AACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCGCAATAAAATATCTTTATTTTTCATTACATCTGTGTGTTGGTTT

3598 TTTGTGTAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCAGTGCAAGTGCAGGTGCCAGA

3698 ACATTTCTCTATCGAA