



100

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

1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA

101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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

201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCCTACCTGAGGCC

301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441) **NgoMI (441)** **NaeI (441)**

401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCCTGACCCTGCTTGCTCAACTCTACGCTTTTGTTCGTTT

NcoI (560)

KasI (535)
BstEII (555) **EcoO109I (572)**

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGCGCTACTCTGAGATCACCGGTCACCATGGCCGACAAGGTCCTGAAGGAGAAGAAAGCAGTT

601 TATCCGTTTCAAGTGGGCAAGGTACAATAAATGGCTTACTGGGTGAATTATTGGAGACAAGGGTCTGAGCCAGGAAGAGATAGATAGTAAAATGTGAA

13▶ I R S V G E G T I N G L L G E L L E T R V L S Q E E I E I V K C E

Tth111I (568)

701 AATGCTACAGTTATGGATAAGGCCGAGCTTTGCTTACTCTGTTATTTCGAAAGGGGCTCCAGCATGCCAAATTTGCATCACATACATTTGTGAAGAAG

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

SphI (763)

801 ACAGTCACTGGCAGGGACGCTGGGACTCTCAGCAGGTCCAACATCTGGAAATCACCTTACTACACAAGATTCTCAAATAGTACTTCTTCTAGGTTCA

80▶ D S H L A G T L G L S A G P T S G N H L T T Q D S Q I V L P S •

ScaI (879) **AvrII (890)**

MscI (925)
NheI (919)

901 ACTTTCATTTGAGCAGCCAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAAGTGAAGTGAAGGAAATGCTTTATT

HpaI (1057) **MfeI (1068)**

1001 TGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAAACAATTGCATTCATTTATGTTTCAGGTTCCAGG

EcoRI (1153)

1101 GGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAATGTGGTATGGAATTCTAAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCC

1201 TCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGT

SspI (1392)

1301 TTAAGATATAGTGTATTTTCCCAAGTTTGAAGTACTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCCACATTCCTTTTATGATAAATATTCA

SwaI (1406)
EcoO109I (1467)

1401 GAAATAATTTAAATACATCATTGCAATGAAATAAATGTTTTTTATTAGGCAGAAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTT

1501 GGACTTAGGGAACAAAGGAACCTTAAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTGATGTTCTGGTGTACTTGGGGGATGAGTTCCTCAA

141▶ • N R T Y K L P I L E E I

SacI (1667) **BstXI (1696)**

1601 TGGTGGTTTTGACCAGCTTGCCATTCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACAC

128▶ 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 C M G C P S V V

1701 CCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATG

95▶ 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 V A S G I A I

StuI (1831)

Eco147I (1831)

1801 GCTTCAGCACAGACAGTACCCTGCCAATGTAGGCCTCAATGTGACAGCAGAGATGATCTCCCCAGTCTTGGTCTGATGGCCGCCCGACATGGTGTCT

61▶ 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 I A A G V H H K

BspHI (1981)

XmnI (1973)

1901 TGTGCTCATAGAGCATGGTGTCTTCTCAGTGGGACCTCCACCAGCTCCAGATCTGCTGAGAGATGTTGAAGGCTTTCATGATGGCCCTCTATA

28▶ 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 T K M

VspI (2039) **AseI (2039)**
SacI (2096)

2001 GTGAGTCGTATTACTATGCGGATATACTATGCGGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCCTAAACGAG

SpeI (2194)

2100 CTCTGCTTATATAGACCTCCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTA

2199 G TCAAAACAAACTCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCGTGAGTCAAACCGTATCCACGCCATTGATGTACTGCCAAAACCGCA

SnaBI (2322)
Eco105I (2322)

2298 TCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAAGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACC

NdeI (2427)

2398 GTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGG

2498 AAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTACGCCAGGCGGGCCATTTACCGTAAGTT

PstI (2606)
SdaI (2605) **PacI (2613)** **BspLU11I (2623)**

2598 ATGTAACGCCTGCAGGTTAA TTAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCTTGCTGGCGTTTTTCCATAGGC

←

2696 TCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAGATAACCAGGCGTTTTCCCTGGAAAGCTC

2796 CCTCGTGCCTCTCCTGTTCCGACCTGCCGCTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGG

ApaLI (2937)

2896 TATCTCAGTTCGGTGTAGGTCGTTGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTG

2996 AGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAA

3096 GTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCC

3196 GGCAAACAAACCACCGCTGGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTA

EagI (3373)
PacI (3353) **SwaI (3362)** **NotI (3372)**

3296 CGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCGCAATAAAATATCTTT

3395 ATTTTCATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAATAGGCT

3495 GTCCCAGTGCAAGTGCAAGTGCCAGAACATTTCTCTATCGAA