



100

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

1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAAGTGGCGGGGTAAGTGGAAAGTGATGCTGTACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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

201 GTGAACGTTCTTTTTCGCAACGGGTTTGGCCGAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCTACCTGAGGGCC
 301 GCCATCCACGCGGTTGAGTGCAGTTCGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCGCGCTTAGGTAAGTTTAAAGCTCAGGTCGAGACC

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

401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCCTGACCCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

NcoI (560)

KasI (535)
BstEII (555) **BsrBI (567)**

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCCTACTCTGAGATCACCGGTACCATTGGAGAGCGGAGGGGCGCCCTCGTGTGCCAGTTCAT
1▶ M E S G G R P S L C Q F I

XmaI (659)
SmaI (659)

601 CCTCTGGGACCCACCTCTGTGGTCACCGCCCTGTACTCCGTGTACCGGAGAGGCGGGTCTCCCAAGAGCTCAAGGAGCTAAAAAAGTTCAT
 13▶ L L G T T S V V T A A L Y S V Y R Q K A R V S Q E L K G A K K V H
 701 TTGGTGAAGATTTAAAGAGTATTTTCAGAAGCTCCAGGAAAATGCGTGCCTTATGCTGTTATAGAAGGAGCTGTGCGGTCTGTTAAAGAAAACGCTTA
 47▶ L G E D L K S I L S E A P G K C V P Y A V I E G A V R S V K E T L
 801 ACAGCCAGTTTGTGAAAAGTCAAGGGGGTAATTCAGCGGCTGACACTTCAGGAGCACAAGATGGTGTGGAATCGAACCACCCACCTTTGGAATGATTG
 80▶ N S Q F V E N C K G V I Q R L T L Q E H K M V W N R T T H L W N D C
 901 CTCAAAGATCATTATCAGAGGACCAACACAGTGCCTTTGACCTGGTGCACGAGGATGGCGTGGATGTGGCTGTGCGAGTGTGAAGCCCTGGAC
 113▶ S K I I H Q R T N T V P F D L V P H E D G V D V A V R V L K P L D

BsrBI (1090)

1001 TCAGTGGATCTGGTCTAGAGACTGTGTATGAGAAGTCCACCCCTCGATTTCAGTCTTACCAGTGTATCGGCCACTACATCAGCGGTGAGCGGCCA
 147▶ S V D L G L E T V Y E K F H P S I Q S F T D V I G H Y I S G E R P
 1101 AAGGCATCCAAGAGACCGAGGAGATGCTGAAGTGGGGCCACCCCTCACAGGGTGGCGAAGTGGTCTGGACAACAACCTGTCCGCTGCAGCGCC
 180▶ K G I Q E T E E M L K V G A T L T G V G E L V L D N N S V R L Q P P

ScaI (1214)
SphI (1208)

1201 CAAACAAGGCATGCAGTACTATCTAAGCAGCCAGGACTTCGACAGCCTGCTGCAGAGGAGGAGTTCGAGCGTCAAGGCTCTGGAAGGTGCTGGCGTGTGT
 213▶ K Q G M Q Y Y L S S Q D F D S L L Q R Q E S S V R L W K V L A L V

BspLU11I (1312)
BspEI (1337)

1301 TTTGGCTTTGCCACATGTCCACCTCTTCTTATTCTCCGGAAGCAGTATCTGCAGCGGAGGAGCGCTCGCGCTCAAGCAGATGCAGGAGGAGTTC
 247▶ F G F A T C A T L F F I L R K Q Y L Q R Q E R L R L K Q M Q E E F

PvuII (1414)
Bsu36I (1435)

1401 AGGAGCATGAGGCCAGCTGCTGAGCCGAGCCAAGCCTGAGGACAGGGAGAGTCTGAAGAGCGCCTGTGTAGTGTCTGAGCAGCTTCAAGTCTGCGT
 280▶ Q E H E A Q L L S R A K P E D R E S L K S A C V V C L S S F K S C V

XmaI (1592)
SmaI (1592)

1501 CTTTCTGGAGTGTGGGCACGTTTGTTCCTGCACCGAGTGTACCGCGCCTTGCAGAGCCCAAGAAAGTGCCTATCTGCAGACAGGCGATCACCCGGGTG
 313▶ F L E C G H V C S C T E C Y R A L P E P K K C P I C R Q A I T R V

MscI (1651)

BsrGI (1607)
NheI (1645)

1601 ATACCCCTGTACAACAGCTAATAGTTTGAAGCCGACAGCTTGTAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAATA
 347▶ I P L Y N S •

HpaI (1783) **MfeI (1794)**

1701 GAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAAACAAGTTAAACAACAATAATTG

EcoRI (1879)

1801 CATTCAATTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAAATCTAAAATACAGCATAG
 1901 CAAAACCTTAACTCCAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTT
 2001 TGCAGCCTCACCTCTTTTTCATGGAGTTTAAAGATATAGTGTATTTCCCAAGGTTTGAAGTACTGCTCTTCAATTTCTTTATGTTTTAAATGCACTGACCTCCC

SspI (2118) **Swal (2132)**
EcoO109I (2193)

2101 ACATTCCCTTTTATAGTAAATATTTCAGAAATAATTTAAATACATCATTGCAATGAAAAATAATGTTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCT
 2201 TCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTAAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGT
141▶ • N R T

2301 GTACTTGGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAGCAGTCAAGGAGCATAGTCAGAGATGAGATGAGCT
 137▶ Y K L P I L E E I T T K V L K G N M E I L V F C D P A Y D S I L E
 2401 CTGCATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCCGT
 103▶ R C M G C P S V V 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

StuI (2557)
Eco147I (2557)

2501 TGCTCACAGCAGACCCAATGGCAATGGCTTCAGCACAGACAGTGACCCTGCCAATGTAGGCCCAATGGACAGCAGAGATGATCTCCCAGTCTTGGT
 70 S V A S G I A I 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

XmnI (2699)

2601 CCTGATGGCCGCCCGACATGGTCTTGTGTCCTCATAGAGCATGGTGATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTG
 37 R I A A G V H H K N D E Y L M T I K E T A V E V L E L D Q Q S I N

BspHI (2707)

VspI (2765)
AseI (2765)

2701 AAGGCTTCATGATGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAG
 3 F T K M

2801 CTATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACAT

SpeI (2920)

2900 TTTGGAAAGTCCCGTTGATTTACTAGTCAAAACAAACTCCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGC

SnaBI (3048)
Eco105I (3048)

2999 CCATTGATGTAAGTCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTAAGTGGG

NdeI (3153)

3099 CATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAA

3199 ATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGCGGTCAG

SdaI (3331) **PacI (3339)** **BspLU11I (3349)**

3299 CCAGGCGGGCCATTTACCGTAAGTTATGTAACGCCCTGCAGGTTAA TTAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCC

3397 GCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGAT

3497 ACCAGCGTTTTCCCCTGGAAGCTCCCTCGTGCCTCTCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGC

ApaLI (3663)

3597 GCTTTCTCATAGCTACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTCCAGCCGACCGCTGC

3697 GCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGTTAACAGGATTAGCAGAGCGAGGTATG

3797 TAGGCGGTGCTACAGAGTCTTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGG

3897 AAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAACACCCTGCTGAGCGGTGGTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCT

PacI (4079) **SwaI (4088)**

3997 CAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGGAAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAAT

EagI (4099)
NotI (4098)

4097 CAGCGGCGCAATAAAATATCTTTATTTTATTACATCTGTGTGGTTTTTTGTTGTAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAA

4197 CAAAACAACTAGCAAAATAGGCTGTCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA