



PvuI (7)
SgfI (6) MfeI (82) EcoNI (96)
1 GGATCTGCATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
101 GAGAAAGTGGCGGGGTAAGTGGAAAGTGATGTCGTGACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245) **Bsu36I (291)**
Psp1406I (203) PvuII (239) EcoNI (287)
201 GTGAACGTTCTTTTTCGCAACGGGTTTGGCCGAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCTACCTGAGGGCC
301 GCCATCCACGCGGTTGAGTGCAGTTCGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

NcoI (560) **BstEII (555)** **SphI (599)**
KasI (535) **AgeI (552)**
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTACCATTGGGGCTAGAAAAACCTCAAAGTAACTGGAAGGAGG
1 M G L E K P Q S K L E G G
601 CATGCATCCCCAGCTGATACCTTCGGTTATTGCTGTAGTTTTTCATCTTACTTCTCAGTGTCTGTTTTATTGCAAGTTGTTTGGTACTCATCAAACTTT
13 M H P Q L I P S V I A V V F I L L L S V C F I A S C L V T H H N F

NsiI (601) **PvuII (610)**
701 TCACGCTGTAAGAGAGGCACAGGAGTGCACAAGTTAGACACCATGCAAAGCTCAAAGTGCATAAAGAGAAAATCAGAAGTAAAAGTGCAGGAGGCA
47 S R C K R G T G V H K L E H H A K L K C I K E K S E L K S A E G S
801 CCTGGAAGTGTGCTTATTGACTGGAGAGCCTCCAGTCCAAGTCTATTTTCTTACTGACAACAAGACGTGGGCTGAGAGTAAAAGAACTGTTT
80 T W N C C P I D W R A F Q S N C Y F P L T D N K T W A E S E R N C S

Bsp120I (908) **BsaBI (918)**
EcoO109I (907)
901 AGGGATGGGGCCCATCTGATGACCATCAGCACGGAAGCTGAGCAGAAGCTTTATTATTAGTTTCTGGATAGACGGCTTTCTATTTCCTGGACTTAGA
113 G M G A H L M T I S T E A E Q N F I I Q F L D R R L S Y F L G L R
1001 GATGAGAAATGCCAAAGGTCAGTGGCGTTGGGTGGACGAGCGCCATTTAACCCACGAGAGTATTCTGGCATAAAGTGAACCCGACAAGTCTCAGGGAG
147 D E N A K G Q W R W V D Q T P F N P R R V F W H K N E P D N S Q G
1101 AAAACTGTGTTGTTCTTTTATAACCAAGATAAATGGGCTGGAATGATGTTCTTGAACCTTTGAAGCAAGTAAAGTTTAAAATACCTGGAACAAC
180 E N C V V L V Y N Q D K W A W N D V P C N F E A S R I C K I P G T T

MscI (1242) **NheI (1236)**
1201 ATTGAACTAGAACTCAGAAAGTGGTCTTGTGATGGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAAGTGAATGCAGT
213 L N •

HpaI (1374) MfeI (1385)
1301 GAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAATTGCATTCAATT

EcoRI (1470)
1401 TATGTTTCAGGTTACAGGGGAGGTGGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTCTAAAATACAGCATAGCAAACTTT
1501 AACCTCAAATCAAGCCTCTACTTGAATCCTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTTTGCCAATGTGCATTAGCTGTTTGCAGCCTC

SapI (1652)
1601 ACCTTCTTTCATGGAGTTAAGATATAGTGATTTTCCCAAGTTTGAAGTACTCTTCAATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCT

SspI (1709) **Swal (1723)** **EcoO109I (1784)**
1701 TTTTAGTAAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATAT
1801 CCCCAGTTTAGTAGTTGACTTAGGGAACAAAGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAG
1 N R T Y K L

SacI (1984)
1901 GGGGATGAGTTCTCAATGGTGGTTTTGACCAGCTTGCCATTCATCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGCACATG
134 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 R C M

BstXI (2013)
2001 CCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAG
100 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 S V A

StuI (2148)
2101 CAGACCAATGGCAATGGCTTACGACAGACAGTACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCAGTCTTGGTCTGATGCC
67 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 R I A

BbsI (2294) **XmnI (2290)**
2201 CGCCCGACATGGTGCTTGTTCCTCATAGAGCATGGTATCTTCTCAGTGGCGACCTCCACAGCTCCAGATCCTGCTGAGAGATGTTGAAGGCTTC
34 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 F T K

AseI (2356)
2301 ATGGTGGCCCTCTATAGTGCATGATTTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGA
0 M

SacI (2413)
2401 CGGTTCACTAAACGAGCTCTGTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGT

2501 **SpeI (2511)**
CCCGTTGATTTACTAGTCAAAAACAAACTCCCATTGACGTCAATGGGGTGGAGACTTGAAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTA

2601 **SnaBI (2639)**
CTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAG

2701 **NdeI (2744)**
GCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCC

2801 **NdeI (2744)**
ATTGACGTCAATGAAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCAATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTACGCCAGCGGGCC

2901 **PstI (2923)** **SdaI (2922)** **PacI (2930)** **BspLU11I (2940)**
ATTTACC GTAAGTTATGTAACGCCTGCAGGTTAATTAAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCTTGTGGCGT

3001 **BspLU11I (2940)**
TTTTCCATAGGCTCCGCCCCCTGACGAGCATCAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAGATACCAGGCGTTTCC

3101 **BspLU11I (2940)**
CCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGC

3201 **ApaLI (3254)**
TCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTAGCCCGACCGCTGCGCCTTATCCGGTA

3301 **ApaLI (3254)**
ACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTAC

3401 **ApaLI (3254)**
AGAGTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGT

3501 **ApaLI (3254)**
AGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTT

3601 **EagI (3690)** **PacI (3670)** **SwaI (3679)** **NotI (3689)**
TGATCTTTTCTACGGGTCTGACGCTCAGTGGAACGAAAACCTCACGTTAAGGGATTTTGGTCAATGGCTAGTTAATTAACATTTAAATCAGCGGCCGAAT

3701 **EagI (3690)**
AAAATATCTTTATTTTTCATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAG

3801 **EagI (3690)**
AAAATAGGCTGTCCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA