



PvuI (7)
SgfI (6) MfeI (82) EcoNI (96)
1 GGATCTGGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
101 GAGAAAGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245) **Bsu36I (291)**
Psp1406I (203) **PvuII (239)** EcoNI (287)
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCTACCTGAGGCC
301 GCCATCCACGCGGTTGAGTGCAGTTCGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCGCTACCTAGACTCAGCGGCTCTCCACGCTTGGCTGACCCTGCTTGTCTAACTCTACGCTTTGTTTCGTTT

NcoI (560)
BstEII (555)
AgeI (552)
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTACCATGGCCTTACCAGTGACCGCCTTGCTCCTGCCGCTGGC
601 CTTGTGCTCCACGCCGCGAGCCAGGCTTCCGGGTGTCGCCGCTGGATCGGACCTGGAACCTGGGCGAGACAGTGGAGCTGAAGTGCAGGTGCTG
13▶ L L L H A A R P S Q F R V S P L D R T W N L G E T V E L K C Q V L

SapI (729)
701 CTGTCCAACCCGACGTCGGGCTGCTCGTGGCTTTCAGCCGCGCGGCGCCGCGCCAGTCCCACCTTCTCCTATACTCTCCAAAACAAGCCCAAGG
47▶ L S N P T S G C S W L F Q P R G A A A S P T F L L Y L S Q N K P K

EagI (800)
801 CGGCCGAGGGGCTGGACACCCAGCGTTCTCGGGCAAGAGGTTGGGGACACCTTCGCTCACCTGAGCGACTTCCGCCGAGAGAACGAGGGCTACTA
80▶ A A E G L D T Q R F S G K R L G D T F V L T L S D F R R E N E G Y Y

DraIII (940)
901 TTTCTGCTCGGCCCTGAGCAACTCCATCATGTACTTCAGCCACTTCGTGCCGCTTCTCCTGCCAGCGAAGCCACCACGACGCCAGCGCCGCGACCACCA
113▶ F C S A L S N S I M Y F S H F V P V F L P A K P T T T P A P R P P

SgrAI (1001) **NgoMIV (1052)** **ApaLI (1075)**
1001 ACACCGGGCGCCACCATCGCGTGCAGCCCTGTCCCTGCGCCAGAGGCGTGCCTGGCCAGCGCGGGGGGCGCAGTGACACAGAGGGGGCTGGACTTCG
147▶ T P A P T I A S Q P L S L R P E A C R P A A G G A V H T R G L D F

EcoRV (1105) **EcoO109I (1142)**
1101 CCTGTGATATCTACATCTGGGCGCCTTGCCGGGACTTGTGGGTCTTCTCCTGTCACTGGTTATCACCTTTACTGCAACCACAGGAACCGAAGACG
180▶ A C D I Y I W A P L A G T C G V L L L S L V I T L Y C N H R N R R R

1201 TGTTTGCAAAATGTCCTCCGCGCTGTGGTCAAATCGGGAGACAAGCCAGCCTTTCGGCGAGATACGTCTAACCTGTGCAACAGCCACTACATTACTTCAA
213▶ V C K C P R P V V K S G D K P S L S A R Y V •

MscI (1308)
NheI (1302)
1301 ACGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTGGACAAACCACAACCTAGAATGCAGTGAATAAATGCTTTATTTGTGAAATTTGTGATGC

HpaI (1440) MfeI (1451)
1401 TATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAACATTGCATTATTTTTATGTTTCAGGTTACAGGGGAGGTGTGGGAGGTT

EcoRI (1536)
1501 TTTTAAAGCAAGTAAACCTCTACAATGTGGTATGGAATCTAAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCTACTTGAATCCTTTT
1601 CTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTGCCAATGTGCATTAGCTGTTGCAGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGATT

SapI (1718) **SspI (1775)** **SwaI (1789)**
1701 TTCCAAGGTTTGAAGTACTGCTTTCATTTCTTTATGTTTTAAATGCAGTGCCTCCACATTCCTTTTATAGTAAAATATTCAGAAATAATTTAAATACA

EcoO109I (1850)
1801 TCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAG
1901 GAACCTTTAATAGAAATGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTTCTGGTGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGC
141▶ N R T Y K L P I L E E I T T K V L

SacI (2050) **BstXI (2079)**
2001 TTGCCATTACATCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGTCTGACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCA
122▶ 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 V
2101 CCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTACGACAGACAGT
89▶ 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 (2214)
2201 GACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCGAGTCTGGTCTGATGGCGCCCGCCAGATGGTCTTGTGCTCCTCATAGAGC
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

XmnI (2356)
2301 ATGGTGATCTTCTCAGTGGGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTCTTCATGGTGGCCCTCTATAGTGAGTGTATTATACT
22▶ M T I K E T A V E V L E L D Q Q S I N F T K M

AseI (2422) **SacI (2479)**
2401 ATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTCACTAAACGAGCTCTGCTTATATAGACCT

2501 CCCACCGTACACGCTACGCCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGAAAGTCCCGTTGATTTACTAGTCAAAAACAAACTCCCATT
SpeI (2577)
 2601 GACGTCAATGGGGTGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATG

SnaBI (2705)
 2701 ACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCCATAAGGTCAATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCAATTGACGTCAATAGGGG

NdeI (2810)
 2801 GCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCATTGACGTCAATGGAAAGTCCCTATTGGCGTTAC

PacI (2996)
PstI (2989)
SdaI (2988)
 2901 TATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTCAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAA

BspLU11I (3006)
 3001 ITAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCTGACGAGCATCA
←
 3101 CAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCG
 3201 ACCCTGCCGTTACCGGATACCTGTCCGCCTTCTCCCTTCGGGAAGCGTGGCGCTTTCATAGCTCAGCTGTAGGTATCTCAGTTCGGTGTAGGTCG

ApaLI (3320)
 3301 TTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTACGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGA
 3401 CTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTAC
 3501 ACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGCAAAACAAACCACCGCTGGTA
 3601 GCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAA

EagI (3756)
PacI (3736) SwaI (3745) NotI (3755)
 3701 CGAAAACACGTTAAGGGATTTGGTCAATGGCTAGTTAATTAACATTTAAATCAGCGGCCGAATAAAATATCTTTATTTTCATTACATCTGTGTGTTG

 3801 GTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAAACTAGCAAAATAGGCTGTCCCCAGTGAAGTGCAGGTGC
 3901 CAGAACATTTCTCTATCGAA