



PvuI (7)
SgfI (6) MfeI (82) EcoNI (96)
1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245) **Bsu36I (291)**
Psp1406I (203) **PvuII (239)** EcoNI (287)
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACACGGCCCGCCGCTACCTGAGGCC
301 GCCATCCACGCCGGTTGAGTGCAGTTCGCCGCTCCCGCCTGTGGTGCTCTCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

NcoI (560)
BstEII (555)
KasI (535) **AgeI (552)**
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGCGCTACCTGAGATCACCGGTCACCATGGAATATCAATCTTCAGTAGAAAATTTGGATGAAGA
1 M E Y Q S S V E N L D E D

BglII (643)
601 TGGATATACTCAATTAGACTTCAGCTCTCGCAACATCACAGGAGATCTGTAGTCTCAGAGAAAAGGGCTTTGTGCTGCATCCTCTCATTGGCGTCTGATT
13 G Y T Q L D F S S R N I T R R S V V S E K G L C A A S S H W R L I

BstAPI (713)
701 GCTGTGACTCTGGGCATTTTATGCTCAGTGTGCTGGTGATAACTGTGGTCTGAGTACCTCGGGTATTTGGAGATCCAGTTCAGGGAACAACCTGTTGA
47 A V T L G I L C S V M L V I T V V L S T S G I W R S S S G N N L L
801 AGAGTGACAGCTTCCATCAAGAAATAAAGACAACCAGAGTCAACCCACACAATCATCTTTAGAAGATAGTGTGATACCTACCAAGGCTCTCACGACCAC
80 K S D S F P S R N K D N Q S Q P T Q S S L E D S V I P T K A L T T T
901 AGGAGTTTCTCTAGCTCTTGTCCCCCTAACTGGATCACACATGAGGATAGCTGTTATCTATTAGCACACTATTAGATTCTGGGATGGAAGTAAAAGA
113 G V F S S S C P P N W I T H E D S C Y L F S T L L D S W D G S K R

BbsI (1074)
1001 CAATGCTTCAACTGGGCTCTCATCTCCTGAAGATAGACAGCTCAAAGAGTTGGAGTTTATATCAAGGCAAGTGTCTTCCAGCCTGATCATTCAATTT
147 Q C F Q L G S H L L K I D S S K E L E F I S R Q V S S Q P D H S F

NcoI (1132)
BstXI (1132)
1101 GGATAGGGCTTTCTCGCCGTCAGACAGAAGAACCATGGCTCTGGGAGGATGGCTCCACCTTGTGTCTAACCTGTTCCAAATCAGAAGTACAGTTACCGA
180 W I G L S R R Q T E E P W L W E D G S T L L S N L F Q I R S T V T E

BamHI (1226)
1201 AAAAGACTCATCTCACAACTGTGCATGGATCCATGTGTGACAGATTTACGACCACTTTGTAGTGTGCATTATACAGATTTTGTGAGAAGAAGTTGTCA
213 K D S S H N C A W I H V S D I Y D Q L C S V H S Y S I C E K K L S

MscI (1312)
NheI (1306)
1301 GTATAAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAAGTGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTG
247 V •

HpaI (1444) MfeI (1455)
1401 ATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAATTGCATTCAATTTATGTTTCAGGTTAGGGGAGGTGTGGGA

EcoRI (1540)
1501 GGTTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTCTAAAATACAGCATAGCAAACTTTAACCTCCAATCAAGCCTCTACTGAAATCC
1601 TTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTCATGGAGTTTAAAGATATAGTG

SapI (1722) **SspI (1779)** **Swal (1793)**
1701 TATTTTCCAAGGTTTGAAGTCTCTTCAATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTGTAGTAAATATTGAGAAATAATTTAAA

EcoO109I (1854)
1801 TACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGAAGTCTAGGGAAC
1901 AAAGGAACCTTTAATAGAAATTTGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGGATGAGTTTCTCAATGGTGGTTTTGAC
141 • N R T Y K L P I L E E I T T K V

SacI (2054) **BstXI (2083)**
2001 CAGCTTGCCATTCACTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGCACATGCCACAGGGGCTGACCCACCTGATGGATCTG
124 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 R I S R
2101 TCCACCTCATCAGAGTAGGGGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAGCACAGA
90 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 A E A C V

StuI (2218)
2201 CAGTGACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCCAGTCTTGGTCTGATGGCCGCCCCGACATGGTGCTTGTTCCTCATA
57 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 N D E Y

BbsI (2364)
XmnI (2360)
2301 GAGCATGGTATCTTCTCAGTGGCGACCTCCACAGCTCCAGATCCTGCTGAGAGATGTTGAAGGCTTTCATGGTGGCCCTCTATAGTGAAGTCTGATTA
24 L M T I K E T A V E V L E L D Q Q S I N F T K M

AseI (2426) **SacI (2483)**
2401 TACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACTAAACGAGCTCTGCTTATATAG

SpeI (2581)

2501 ACCTCCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCC

2601 CATTGACGTCAATGGGGTGGAGACTTGGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGC

SnaBI (2709)

2701 GATGACTAATACGTAGATGTAAGTCCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATA

NdeI (2814)

2801 GGGGGCGTACTTGGCATATGATACACTTGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCG

PstI (2993)

SdaI (2992)

2901 TTACTATGGGAACATACGTCAATTATTGACGTCAATGGGGCGGGGTCGTTGGCGGTCAGCCAGGCGGGCCATTTACCGTAAAGTATGTAAACGCTGCAGG

PacI (3000)

BspLU11I (3010)

3001 TTAAATAAGAACATGTGAGCAAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCTTGTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGC

3101 ATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCCTCTCTGT

3201 TCCGACCCTGCCGCTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAG

ApaLI (3324)

3301 GTCGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTACGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGAC

3401 ACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGTACAGAGTCTTGAAGTGGTGGCCTAACTACGG

3501 CTACTACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAAACAAACCAGCT

3601 GGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGT

EagI (3760)

PacI (3740)

SwaI (3749)

NotI (3759)

3701 GGAACGAAAACCTCACGTTAAGGGATTTTGGTCAATGGCTAGTTAATTAACATTTAAATCAGCGGCCCAATAAAATATCTTTATTTTTCATTACATCTGTGT

3801 GTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAAATAGGCTGTCCCAGTGAAGTGCAG

3901 GTGCCAGAACATTTCTCTATCGAA