



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

HindIII (245) **Bsu36I (291)**
Psp1406I (203) **PvuII (239)** **EcoNI (287)**
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACCGCGCCCGCCCTACCTGAGGCC
301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCGGCGCTCCCTTGAGCCTACCTAGACTCAGCGGCTCTCCACGCTTGGCTGACCCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

NcoI (560) **BstEII (555)** **AgeI (552)**
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCCCTACCTGAGATCACCGGTACCATTGGCTCGGGGCTCGCTGCGCCGTTGCTGCGGCTCCT
1 M A R G S L R R L L R L L L
SacII (672)
601 CGTGCTGGGGCTCTGGCTGGCGTTGCTGCGCTCCGTGGCCGGGAGCAAGCGCCAGGCACCGCCCTGCTCCCGCGGAGCTCTGGAGCGCGGACCTG
13 V L G L W L A L L R S V A G E Q A P G T A P C S R G S S W S A D L

BstAPI (707) **PstI (764)**
701 GACAAGTGCATGGACTGCGCGTCTTGACAGGGCGGACCGCACAGCGACTTCTGCCTGGGCTGCGCTGCAGCACCTCTGCCCCCTCCGGCTGCTTTGGC
47 D K C M D C A S C R A R P H S D F C L G C A A A P P A P F R L L W
801 CCATCCTTGGGGGCGCTCTGAGCCTGACCTTCTGCTGGGCTGCTTTCTGGCTTTTGGTCTGGAGACGATGCCGAGGAGAGAAGTTACCACCCC
80 P I L G G A L S L T F V L G L L S G F L V W R R C R R R E K F T T P

MscI (970)
901 CATAGAGGAGACCGCGGAGAGGGCTGCCAGCTGTGGCGCTGATCCAGTGACAATGTGCCCCCGCTAGCTGGCCAGACATGATAAGATACATTGATGAG
113 I E E T G G E G C P A V A L I Q •
1001 TTTGGACAACCACAAC TAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAAC

HpaI (1102) **MfeI (1113)** **EcoRI (1198)**
1101 AAGTTAACAAACAATTGCATTCATTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAATGTGGTATGGA
1201 ATTCTAAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTG

SapI (1380)
1301 CCAATGTGCATTAGCTGTTTGACGCTCACCTCTTTCATGGAGTTTAAAGATATAGTGTATTTTCCCAAGTTTGAAGTACGCTCTTCATTTCTTTATGTT

SspI (1437) **SwaI (1451)**
1401 TTAATGCACTGACCTCCACATTCCTTTTTAGTAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAA

EcoO109I (1512)
1501 TCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGACTTAGGGAACAAAGGAACCTTAATAGAAATTGGACAGCAAGAAAGCGAGCT
1601 TCTAGCTTTAGTTCCTGGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCTCAATGAGCACAAAGCAGTCAGGAGC
141 • N R T 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

SacI (1712) **BstXI (1741)**
1701 ATAGTCAGAGATGAGCTCTGCACATGCCACAGGGGCTGACCCACTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTG
110 Y D S I L E 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

StuI (1876)
1801 TCAAAGTCTTCTGCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTCAGCACAGACAGTGCCTGCAATGTAGGCTCAATGTGGACAGCAGAGA
76 D F D K Q G N 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
1901 TGATCTCCCCAGTCTTGGTCTGATGGCCGCCGACATGGTCTTGTTCCTCATAGAGCATGGTATCTTCTCAGTGGCGACCTCCACAGCTCCAG
43 I E G T K T 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

BbsI (2022) **XmnI (2018)** **AseI (2084)**
2001 ATCCTGCTGAGAGATGTTGAAGGTTCTTTCATGGTGGCCCTCTATAGTGTGCTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACA
10 D Q Q S I N F T K M

SacI (2141)
2101 GCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGG

SpeI (2239)
2201 GCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAACAACCTCCATTGACGTCAATGGGGTGGAGACTTGGAAATCCCGTGAGT

SnaBI (2367)
2301 CAAACGCTATCCACGCCATTGATGTAAGTCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTAAGTCCAAAGTAGAAAGTCCCA

NdeI (2472)
2401 TAAGTCACTGACTGGGCATAATGCCAGGCGGGCCATTTACCGTCAATGACGTCAATAGGGGGCTACTTGGCATATGATACACTTGTACTGCCAAG

2501 TGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCAATTATTGACGTCAATGGGCGGG

PacI (2658)

PstI (2651)

SdaI (2650)

BspLU11I (2668)

2601 GGTCGTTGGGCGGTCAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCCTGCAGGTTAATTAAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGG

2701 AACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGA

2801 CAGGACTATAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACCTGCCGTTACCGGATACCTGTCCGCTTTCTCCC

ApaLI (2982)

2901 TTCGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGCTT

3001 CAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTA

3101 GCAGAGCGAGGTATGTAGGCGGTCTACAGAGTCTTGAAGTGGTGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAA

3201 GCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAAACACCAGCTGGTAGCGGTGGTTTTTTTGTGTTGCAAGCAGCAGATTACGCGC

PacI (3398)

3301 AGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTT

EagI (3418)

SwaI (3407)

NotI (3417)

3401 AATTAACATTTAAATC AGCGGCCGCAATAAAATATCTTTATTTTCATTACATCTGTGTGTTGGTTTTTTTGTGTAATCGTAACTAACATACGCTCTCCAT

3501 CAAAAAAAACGAAACAAAACAACTAGCAAAATAGGCTGTCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA