



PvuI (7)
SgfI (6) MfeI (82) EcoNI (96)
1 GGATCTGCATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245) **Bsu36I (291)**
Psp1406I (203) **PvuII (239)** EcoNI (287)
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTACCGCGCCCGCCCTACCTGAGGCC
301 GCCATCCACGCGGTTGAGTGCCTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCGCTACCTAGACTCAGCGGCTCTCCACGCTTGGCTGACCCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

KasI (535) **AgeI (552)** **BspHI (560)**
501 TCTGTTCTGCGCGGTTACAGATCCAAGCTGTGACCGCGCGCTACCTGAGATCACCGGTCATCATGACATTGCATCCTTCAACCATCACTTGTGAATTTTT
601 GTTTTCCACAGCTCTCATTCTCCAAAAATGTGTTGAGCCACTTGGAAAATATGCCTTAAAGCATTCAAGAAGCTCAAGGAGCTCAGAGATCCTCTGG
13▶ F S T A L I S P K M C L S H L E N M P L S H S R T Q G A Q R S S W
701 AAGCTGTGGCTCTTTTGCTCAATAGTTATGTTGCTATTTCTTGTCTCAGTTGGCTAATCTTTATTTTCTCAATTAGAGACTGCTAAGGAGCCCT
47▶ K L W L F C S I V M L L F L C S F S W L I F I F L Q L E T A K E P
801 GTATGGCTAAGTTTGGACATTACCCTCAAATGGCAAATGGCATCTTCTGAACCTCCTTGCCTGAATAAGGTGTCTGACTGGAAGCTGGAGATACTTCA
80▶ C M A K F G P L P S K W Q M A S S E P P C V N K V S D W K L E I L Q

MscI (921)
901 GAATGGCTTATATTTAATTTATGGCCAAGTGGCTCCCAATGCAAACACTACAATGATGTAGCTCCTTTTGGAGTGGCGGTGTATAAAAAACAAAGACATGATA
113▶ N G L Y L I Y G Q V A P N A N Y N D V A P F E V R L Y K N K D M I
1001 CAACTCTAACAAACAAATCTAAAATCCAAAATGATAGGAGGACTTATGAATTGCATGTTGGGACACCATAGACTTGATATTTCAACTCTGAGCATCAGG
147▶ Q T L T N K S K I Q N V G G T Y E L H V G D T I D L I F N S E H Q

NheI (1162) **AvrII (1157)** **MscI (1168)**
1101 TTCTAAAAATAATACATACTGGGGTATCATTCTACTAGCAAATCCCCAATTCATCTCCTAGGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTT
180▶ V L K N N T Y W G I I L L A N P Q F I S •
1201 TGGACAAACCACAACCTAGAATGCAGTGAATAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAA

HpaI (1300) **MfeI (1311)** **EcoRI (1396)**
1301 GTTAAACAACAACATTGCATTCATTTTATGTTTCAGGTTCAAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAATGTGGTATGGAAT
1401 TCTAAAATACAGCATAGCAAACCTTAACTCCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTGCC

SapI (1578)
1501 AATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGTATTTTCCCAAGGTTTGAAGTACTCTTCATTCTTTTATGTTTT

SspI (1635) **SwaI (1649)**
1601 AAATGCAGTACCTCCACATTCCTTTTATGATAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATC

EcoO109I (1710)
1701 CAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGACTTAGGGAACAAAGGAACCTTAAATAGAAATTGGACAGCAAGAAAGCGAGCTTC
1801 TAGCTTTAGTTTCTGGTGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTATCTCAATGAGCACAAAGCAGTCAGGAGCAT
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 Y

BstXI (1939)
1901 AGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATGTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTG
109▶ 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 D

StuI (2074)
2001 AAAGTCTTCTGCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTCCAGCAGACAGTACCTGCAATGTAGGCTCAATGTGGCAGCAGAGATG
76▶ 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
2101 ATCTCCCAAGTCTTGGTCTGATGGCCGCCGACATGGTCTTGTCTCATAGAGCATGGTATCTTCTCAGTGGCGACCTCCACAGCTCCAGAT
42▶ 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 D

BbsI (2220) **XmnI (2216)** **AseI (2282)**
2201 CCTGCTGAGAGATGTTGAAGGTCTTCATGGTGGCCCTCTATAGTGTGATTATACTATGCGGATATACTATGCCGATGATTAATTGTCAAACAGC
9▶ Q Q S I N F T K M
2301 GTGGATGGCGTCTCCAGCTTATCTGACGGTTCCTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCTACCGCCATTTGCGTCAATGGGGC

SpeI (2437)
2401 GGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCCATTTGACGTCAATGGGGTGGAGACTTGGAAATCCCCGTGAGTCA

SnaBI (2565)
2501 AACCGCTATCCACGCCATTGATGTAAGTCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTAAGTCCAAAGTAGGAAAGTCCATA

NdeI (2670)
2601 AGGTCATGTAAGTGGCATAATGCCAGGCGGGCCATTTACCGTCTTACGCTCAATAGGGGGCGTACTTGGCATATGATACACTTGTACTGCAAGTG

2701 GGCAGTTTACCGTAAATACTCCACCCATTGACGTC AATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTC AATGGGCGGGG

PacI (2856)

PstI (2849)

SdaI (2848)

BspLU11I (2866)

2801 TCGTTGGGCGGTCAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAATTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAA

2901 CCGTAAAAAGGCCGCGTTTGTGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACA

3001 GGACTATAAAGATACCAGGCGTTTTCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTT

ApaLI (3180)

3101 CGGGAAGCGTGGCGCTTTTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTCA

3201 GCCCGACCCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGC

3301 AGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGC

3401 CAGTTACCTTCGGAAAAAGATTGGTAGCTCTTGATCCGGCAAACAACCACCGCTGGTAGCGGTGGTTTTTTGTTTGAAGCAGCAGATTACGCGCAG

PacI (3596)

3501 AAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGGAAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAA

EagI (3616)

SwaI (3605)

NotI (3615)

3601 TTAACATTTAAATCAGCGGCCGAATAAAATATCTTTATTTTATTACATCTGTGTGTTGGTTTTTTGTGTAATCGTAACTAACATACGCTCTCCATCA

3701 AAACAAAACGAAACAAAACAACTAGCAAAATAGGCTGTCCCCAGTGCAAGTGCAAGTGCCAGAACATTCTCTATCGAA