



PvuI (7)
SgfI (6) MfeI (82) AgeI (89) EcoNI (96)
1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACCGGTGCCTA
101 GAGAAAGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGACTGGCTCCGCCTTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245) **Bsu36I (291)**
Psp1406I (203) **PvuII (239)** **EcoNI (287)**
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTCACGCGCCCGCCGCTACCTGAGGCC
301 GCCATCCACGCGGTTGAGTGCAGTTCGCCGCTCCCGCCTGTGGTGCCTCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

AgeI (552) **BspHI (568)**
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGCGCCTACCTGAGATCACCGGTAGGAGGGCCATCATGAATTTCAACAGAGGCTGCAAAGCCTG
601 TGGACTTTAGCCAGACCCTTCTGCCTCCTTTGCTGGCGACAGCCTCTCAAATGCAGATGTTGTGCTCCCTTGCTGGGTTTTACCTGCTTCTCTGGA
11▶ W T L A R P F C P P L L A T A S Q M Q M V V L P C L G F T L L L W
1▶ M N F Q Q R L Q S L

Bsp120I (712) **EcoRI (726)** **Bsp120I (738)**
701 GCCAGGTATCAGGGGCCAGGGCCAAGAATCCACTTTGGGCCCTGCCAAGTGAAGGGGTTGTTCCCGAAGTGTGGGAAGCCTTCTGGGCTGTGAA
801 AGACACTATGCAAGCTCAGGATAACATCAGAGTCCCGGCTGCTGCAGCAGGAGGTTCTGCAGAACGCTCTGGATGCTGAGAGCTGTACCTGTCCAC
77▶ D T M Q A Q D N I T S A R L L Q Q E V L Q N V S D A E S C Y L V H

XmnI (971) **MscI (988)**
901 ACCCTGCTGGAGTCTACTTGA AAACTGTTTTCAAAAACACCACAATAGAACAGTTGAAGTCAGGACTCTGAAGTCATTCTCTACTCTGGCCAACT
111▶ T L L E F Y L K T V F K N H H N R T V E V R T L K S F S T L A N N

ApaLI (1063) **BspEI (1087)**
1001 TTGTTCTCATCGTGCACAACCTGCAACCCAGTCAAGAAAATGAGATGTTTTCCATCAGAGACAGTGCACACAGGCGGTTTCTGCTATTCCGGAGAGCATT
144▶ F V L I V S Q L Q P S Q E N E M F S I R D S A H R R F L L F R R A F

XbaI (1194)
1101 CAAACAGTTGGACGTAGAAGCAGCTCTGACCAAAGCCCTTGGGGAAGTGACATTCTTCTGACCTGGATGCAGAAATTCTACAAGCTCGAATGTCTAGA
177▶ K Q L D V E A A L T K A L G E V D I L L T W M Q K F Y K L •

MscI (1222)
1201 CCAGGACCTCCCTCCCGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGT

HpaI (1354) **MfeI (1365)**
1301 GAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAACATTCATTCTTTATGTTTCAGGTTTCAGGGGG

EcoRI (1450)
1401 AGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATCTAAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCT
1501 ACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTCTTTTCATGGAGTTTA

SapI (1632) **SspI (1689)**
1601 AGATATAGTGTATTTTCCAAGGTTTGAAGTCTCTTCAATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTAGTAAATATTAGAA

Swal (1703)
1701 ATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGA
1801 CTTAGGGAACAAAGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGGGATGAGTTCCTCAATGG
141▶ • N R T Y K L P I L E E I T

SacI (1964) **BstXI (1993)**
1901 TGGTTTTGACCAGCTTGCCATTCACTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCT
127▶ 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 G C P S V V R
2001 GATGGATCTGTCCACCTCATCAGATAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCCCTGCTCACAGCAGACCCCAATGGCAATGGCT
94▶ 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 S G I A I A

StuI (2128)
2101 TCAGCACAGACAGTGACCCTGCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCCAGTCTTGGTCTGATGGCCGCCCCGACATGGTGCTTGT
60▶ 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 A G V H H K N

BspHI (2278) **BbsI (2274)** **XmnI (2270)**
2201 TGTCTCATAGAGCATGGTGTCTCTCAGTGGCGACCTCCACCAGTCCAGATCCTGCTGAGAGATGTTGAAGGCTTCATGATGGCCCTCCTATAGTG
27▶ 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 M

AseI (2336) **SacI (2393)**
2301 AGTCGTATTACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACTAAACGAGCTCT

SpeI (2491)
2401 GCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAA
2501 AACAACTCCATTGACGTCAATGGGGTGGAGACTTGGAAATCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCA

SnaBI (2619)

2601 TGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCCATAAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATT

NdeI (2724)

2701 GACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTC

2801 CCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTCAGCCAGGCGGGCCATTTACCGTAAAGTTATGTAA

PacI (2910)

SdaI (2902)

BspLU11I (2920)

2901 CGCCTGCAGGTTAAATTAAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCC

3001 CCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGC

3101 GCTCTCCTGTTCCGACCCTGCCGCTTACCGGATACCTGTCCGCCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAG

ApaLI (3234)

3201 TTCGGTGTAGGTCGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTACGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAAC

3301 CCGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGC

3401 CTAACACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACA

3501 AACCACCGCTGGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCT

EagI (3670)

PacI (3650) SwaI (3659)

NotI (3669)

3601 GACGCTCAGTGGAACGAAAACACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCGAATAAAATATCTTTATTTTCATT

3701 ACATCTGTGTGTTGGTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGT

3801 GCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA