



100

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

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

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGTCTTTGTTTCGTTT

NcoI (560)
BstEII (555)
KasI (535) **AgeI (552)**
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTCACCATGGCCTTGCCCTTTGTTTTACTGATGGCCTGGTGGT
601 GCTCAACTGCAAGTCAATCTGTTCTCTGGCTGTGATCTGCCTCAGACCACAGCCTGAGTAACAGGAGCCTTTGATGATAATGGCACAAATGGGAAGA
13▶ L N C K S I C S L G C D L P Q T H S L S N R R T L M I M A Q M G R
1▶ M A L P F V L L M A L V V

Bsu36I (745)
701 ATCTCTCCTTTCTCCTGCCTGAAGGACAGACATGACTTTGGATTTCTCAGGAGGAGTTTGATGGCAACCAGTCCAGAAGGCTCAAGCCATCTCTGTCC
47▶ I S P F S C L K D R H D F G F P Q E E F D G N Q F Q K A Q A I S V
XbaI (873)
801 TCCATGAGATGATCCAGCAGACCTTCAATCTCTCAGCACAAAGGACTCATCTGCTACTTTGGGATGAGACACTTCTAGACAAATTCTACTGAACTTTA
80▶ L H E M I Q Q T F N L F S T K D S S A T W D E T L L D K F Y T E L Y

PvuII (904) **BbsI (949)**
901 CCAGCAGCTGAATGACCTGGAAGCCTGTATGATGCAGGAGGTTGGAGTGAAGACACTCTCTGATGAATGTGGACTCTATCCTGACTGTGAGAAAATAC
113▶ Q Q L N D L E A C M M Q E V G V E D T P L M N V D S I L T V R K Y

BspHI (1073)
1001 TTTCAAAGAATCACTCTCTATCTGACAGAGAAGAAATACAGCCCTTGTGCATGGGAGGTTGTCAGAGCAGAAATCATGAGATCCTTCTTTATCAGCAA
147▶ F Q R I T L Y L T E K K Y S P C A W E V V R A E I M R S F S L S A

MscI (1172)
XmnI (1148) **NheI (1166)**
1101 ACTTGCAAGAAAGATTAAGGAGGAAGGAATGAAAACTGGTTCAACATCGAAATGATTCTCATTGACGCTAGCTGGCCAGACATGATAAGATACATTGATG
180▶ N L Q E R L R R K E •
1201 AGTTTGGCAAACCAACTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAA

HpaI (1304) MfeI (1315)
1301 ACAAGTTAAACAACAATTGCATTTCATTTTATGTTTCAGGTTTCAGGGGGAGGTGTGGGAGGTTTTTAAAGCAAAGTAAACCTCTACAAATGTGGTATG

EcoRI (1400)
1401 GAATTCTAAAATACAGCATAGCAAACTTTAACCTCCAATCAAGCCTCTACTGAACTCTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGCTGT

SapI (1582)
1501 TGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGATTTTCCCAAGGTTTGAAGTACTCTTCATTTCTTTATG

SspI (1639) SwaI (1653)
1601 TTTAAATGCACTGACCTCCACATTCCCTTTTAGTAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAG

EcoO109I (1714)
1701 AATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAG
1801 CTTCTAGCTTTAGTTCTGGTGTACTTGAGGGGATGAGTTCTCAATGGTGGTTTTGACCAGCTTGCCATTCATCTCAATGAGCACAAAGCAGTCAGGA
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

SacI (1914) **BstXI (1943)**
1901 GCATAGTCAGAGATGAGCTCTGACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGG
110▶ A 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 (2078)
2001 TGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAGCACAGACAGTGACCCTGCCAATGTAGGCCCTCAATGTGGACAGCAGA
77▶ 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
2101 GATGATCTCCCAGTCTGGTCTGATGGCCGCCCGACATGGTGCTTGTGCTCATAGAGCATGGTATCTTCTCAGTGGCGACCTCCACCAGCTCC
44▶ I 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

BbsI (2224) **XmnI (2220)** **AseI (2286)**
2201 AGATCCTGCTGAGAGATGTTGAAGTCTTCATGGTGGCCCTCTATAGTGAGTCTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAAA
10▶ L D Q Q S I N F T K M

SacI (2343)
2301 CAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCCTACAGCCTACCGCCATTTGCGTCAATG

SpeI (2441)
2401 GGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAACAAACTCCATTGACGTCAATGGGGTGGAGACTTGGAAATCCCGTGA

2501 GTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCC
SnaBI (2569)

2601 CATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCTACTTGGCATATGATACACTTGATGTACTGCCA
NdeI (2674)

2701 AGTGGGCAGTTTACCCTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCG

PacI (2860)
PstI (2853)
SdaI (2852) **BspLU11I (2870)**

2801 GGGGTCGTTGGGCGTCCAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAATTAAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCA
←

2901 GGAACCGTAAAAAGGCCGCTTGTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCC

3001 GACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCCTCTCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTCTC

ApaLI (3184)

3101 CCTTCGGGAAGCGTGGCGTTTTTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGG

3201 TTCAGCCCACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGAT

3301 TAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTG

3401 AAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTGGTGAATCGTAACTAACATACGCTCTCC

3501 GCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAG

EagI (3620)

PacI (3600) SwaI (3609) **NotI (3619)**

3601 TTAATTAACATTTAAATCAGCGGCCGCAATAAAATATCTTTATTTTCATTACATCTGTGTGGTTTTTTTGGTGAATCGTAACTAACATACGCTCTCC

3701 ATCAAAACAAAACGAAACAAAACAAACTAGCAAATAGGCTGTCCCCAGTGCAAGTGCAAGTGCCAGGTCCAGAACATTTCTCTATCGAA