



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

Psp1406I (203) **HindIII (245)** **Bsu36I (291)**
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCAGAGGGCTCGCATCTCTCTTACAGCGCCCGCCGCTACCTGAGGCC
301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441) **NaeI (441)**
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGTCTTTGTTTCGTTT

BspHI (560)
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTCATCATGAAGAGAGCGTTTTGTGACTGTCGGGACCACCAGTTT
1 M K R A F V T V G T T S F

XhoI (646)
601 CGACGAGCTCGTCGCACGGGTGGTGCCTAACGACTGCGTTTTCAGATCCTCGAGAGTCTGGGTTACAACCATCTTGTCTCCAAGTTGGTAGAGGCACTGTG
13 D E L V A R V V A N D C V Q I L E S L G Y N H L V L Q V G R G T V

XmnI (766) **BbsI (766)**
701 GTGCCAAACATTCCGTAAGTACTGAGTCACTCTGGATGTTTACAGGTATAAGGATTCTTTGAAAGAAAGACCTTCAGCAAGCTGATCTTGTCTATTAGCC
47 V P K P F R T E S F T L D V Y R Y K D S L K E D L Q Q A D L V I S
801 ACGCAGGTGCAGGAAGCTGTTTGGAGAGTCTGGAGAAAGGCAACCACTTGTGGTAGTTGAAATGAAAAGTTAATGAACAATCATCAATTTGAATTGGC
80 H A G A G S C L E S L E K G K P L V V V V N E K L M N N H Q F E L A

PstI (939)
901 AAAGCAGTTGCACAAAGAAGGCCATCTCTTTTATTGTACTGACGACGCTTCTGGGCTGTTACAGTCAATGGATTATCAACACTGAAATGTTATCCT
113 K Q L H K E G H L F Y C T C S T L P G L L Q S M D L S T L K C Y P

MscI (1002)
1001 CCTGGCCAGCCAGAAAAATTTTCTGCATTTTTGGATAAAGTTGTTGGATTACAAAAATAAAGTCTCAACACTTTAAAATACCCCTAAGTCCAGTTCATGG
147 P G Q P E K F S A F L D K V V G L Q K •

MscI (1106)
1101 GCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTGGACAAACCACAAGTGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTA

HpaI (1238) **MfeI (1249)**
1201 TTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAACAATTGCATTATTTATGTTTCAGGTTCCAGGGGAGGTGTGGGAGTTTT

EcoRI (1334)
1301 TTAAGCAAGTAAACCTCTACAAATGGGTATGGAATTCTAAAATACAGCATAGCAAACTTAACTCCAAATCAAGCCTCTACTTGAATCCTTTTTCT
1401 GAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTGCAGCCTCACCTTCTTTCATGGAGTTTAAGATATAGTGTATTTT

SspI (1573) **SwaI (1587)**
1501 CCCAAGTTTGAAGTACTGCTTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTTAGTAAAATATTCAGAAATAATTTAAATACATC

EcoO109I (1648)
1601 ATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGA
1701 ACCTTTAATAGAAATGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTT
141 • N R T Y K L P I L E E I T T K V L K

BstXI (1877)
1801 GCCATTCTCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCCTGATGGATCTGTCCACC
122 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 D V
1901 TCATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCCAGCACAGACAGTGA
88 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 T V

StuI (2012)
2001 CCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCGAGTCTTGGTCTGATGGCCGCCCGACATGGTCTTGTGCTCATAGAGCAT
55 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 L M

BspHI (2162) **BbsI (2158)**
2101 GGTGATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGTCTTCATGATGGCCCTCTATAGTGAATGATTACTAT
22 T I K E T A V E V L E L D Q Q S I N F T K M

XmnI (2154)
2201 GCGATATACTATGCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTATCTGACGGTTCATAAACGAGCTCTGCTTATATAGACCTCC

AseI (2220)
2301 CACCGTACACGCCTACGCCCATTTGCGTCAATGGGGCGAGTTGTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCCATTG

BspHI (2162) **BbsI (2158)** **XmnI (2154)** **SpeI (2375)**

2400 ACGTCAATGGGGTGGAGACTTGAAATCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGA

SnaBI (2503)

2500 CTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCCATAAAGTCATGTACTGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGG

NdeI (2608)

2600 CGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTACT

PstI (2787)

SdaI (2786) PacI (2794)

2700 ATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTACGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCCCTGCAGGTTA

BspLU11I (2804)

2798 A TTAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCTTGTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATC

2898 ACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGCGCTCTCTGTTC

2998 GACCCTGCCGCTTACCGGATACCTGTCCGCTTCTCCCTTCGGGAAGCGTGGCGCTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTC

ApaLI (3118)

3098 GTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTACGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACG

3198 ACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTA

3298 CACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAACACCCTGGT

3398 AGCGGTGGTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTACGGGTCTGACGCTCAGTGGGA

EagI (3554)

PacI (3534) SmaI (3543) **NotI (3553)**

3498 ACGAAAACACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCGCAATAAAATATCTTTATTTTTCATTACATCTGTGTGTT

3598 GGTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCAGTGCAAGTGCAGGTG

3698 CCAGAACATTTCTCTATCGAA