



PvuI (7)
SgfI (6) 1 GGATCTGCATCGCTCCGGTGCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA

101 GAGAAAGTGGCGCGGGTAAACTGGAAAGTATGTCGTGACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203) **PvuII (239)** **Bsu36I (291)**
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCCTTCACGCGCCGCCCTACCTGAGGCC

301 GCCATCCACGCCGGTTGAGTCGCGTTTGC CGCCTCCCGCTGTGGTGCTCCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

501 TCTGTTTGTCCGGCGTTACAGATCCAAGCTGTGACCGCGCCTACCTGAGATCACCGGTATCATGAAGCTTCTCACGGGCTGGTTTTCTGCTCCTTGGT

AgeI (552) **BspHI (560)**
1 M K L L T G L V F C S L V
BspLU11I (662)
601 CCTGGGTGTCAGCAGCCGAAGCTTCTTTTCTGTTCCCTTGGCGAGGCTTTTGGTGGGCTCGGGACATGTGGAGAGCCTACTCTGACATGAGAGAAGCCAAT

13 L G V S S R S F F S F L G E A F D G A R D M W R A Y S D M R E A N
EcoO109I (756) **PstI (776)**
701 TACATCGGCTCAGACAAATACTTCCATGCTCGGGGAACTATGATGCTGCCAAAAGGGGACCTGGGGGTGCCTGGGCTGCAGAAGTATCAGCGATGCCA

47 Y I G S D K Y F H A R G N Y D A A K R G P G G A W A A E V I S D A
NcoI (825)
801 GAGAGAATATCCAGAGATTCTTTGGCCATGGTGGGAGGACTCGCTGGCTGATCAGGCTGCCAATGAATGGGGCAGGAGTGGCAAAGACCCCAATCACTT

80 R E N I Q R F F G H G A E D S L A D Q A A N E W G R S G K D P N H F
MscI (822)
MscI (961)
901 CCGACCTGCTGGCTGCCTGAGAAATACTGAGCTTCTCTTCACTCTGCTCTCAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGACAA

113 R P A G L P E K Y •
HpaI (1093)
1001 ACCACAAC TAGAATGCAGTGA AAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACA

MfeI (1104) **EcoRI (1189)**
1101 ACAACAATTGCATTCTTTTATGTTTCAGGTTCAAGGGGAGGTGTGGGAGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATCTAATAA

1201 TACAGCATAGCAAACCTTAACTCCAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGC

SapI (1371)
1301 ATTAGCTGTTTGACGCTCACCTTCTTTCATGGAGTTAAGATATAGTGATTTTCCCAAGGTTTGAAGTACTAGCTCTTCATTTCTTTATGTTTTAAATGCA

SspI (1428) **SwaI (1442)**
1401 CTGACCTCCACATTCCTTTTATAGTAAAATATTCAGAAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATAGGCAGAATCCAGATGC

EcoO109I (1503)
1501 TCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTT

141 •
1601 AGTTCCTGGTGTACTTGGAGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGA

140 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 D S
SacI (1703) **BstXI (1732)**
1701 GATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCC

107 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 F D
StuI (1867)
1801 TTCTGCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTCCAGCAGACAGTACCCTGCCAATGTAGGCCCTCAATGTGGACAGCAGAGATGATCTCCC

73 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 I E G
1901 CAGTCTTGGTCTGATGGCCGCCCGACATGGTCTTGTCTCATAGAGCATGGTATCTTCTCAGTGGCGACCTCACCAGCTCCAGATCCTGCTG

40 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 Q Q
BspHI (2017)
BbsI (2013)
XmnI (2009) **AseI (2075)**
2001 AGAGATGTTGAAGTCTTCATGATGCCCTCTATAGTGAGTCGATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATG

7 S I N F T K M
SacI (2132)
2101 GCGTCTCCAGCTTATCTGACGGTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTCGCTCAATGGGGCGGAGTTG

SpeI (2230)
2201 TTACGACATTTTGAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCATTGACGTC AATGGGGTGGAGACTTGGAAATCCCGTGAGTCAAACCGCT

2301 ATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCCATAAAGTCAT
SnaBI (2358)

2401 GTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACTTGTACTGCCAAGTGGGCAGTT
NdeI (2463)

2501 TACCGTAAATACTCCACCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGG

2601 GCGGTCAGCCAGGCGGGCCATTTACCGTAAAGTTATGTAACG**CCTGCAGGTTAAT**TAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAA
PacI (2649)
PstI (2642)
SdaI (2641) **BspLU11I (2659)**

2701 AAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCGACAGGACTAT

2801 AAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACCCTGCCGCTTACCGGATACCTGTCCGCCTTTCTCCCTTCGGGAAG

2901 CGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTCCAGCCGAC
ApaI (2973)

3001 CGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAAACAGGATTAGCAGAGCGA

3101 GGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTAC

3201 CTTGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTGTTCGCAAGCAGCAGATTACGCGCAGAAAAAAA

3301 GGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACAT
PacI (3389) **SwaI (3398)**

3401 TTAATCAGCGCGCAATAAAAATATCTTTATTTTATTACATCTGTGTGGTTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAA
EagI (3409)
NotI (3408)

3501 ACGAAACAAAACAACTAGCAAATAGGCTGTCCCGAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA