



PvuI (7)
SgfI (6) 1 GGATCTGCATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA

MfeI (82)
101 GAGAAAGTGGCGCGGGTAAACTGGAAAAGTGTGCTGTACTGGCTCCGCTTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245)
Psp1406I (203) 201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTCACGCGCCCGCCGCTACCTGAGGCC

PvuII (239)
Bsu36I (291) 301 GCCATCCACGCCGGTTGAGTCGCGTTCTGCCGCTCCCGCTGTGGTGCCTCCTGAACTGCGTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCTGCTTGTCAACTCTACGCTTTTGTTCGTTT

AgeI (552) **BspLU11I (560)**
501 TCTGTTCTGCGCGTTACAGATCCAAGCTGTGACCGCGCTACCTGAGATCACCGTCAACATGTCCGTGGCGGTGGCGCTGTGGCTGTGACCCCGA
1 M S V A V A P V A V H P D

SphI (602) **BbsI (646)**
601 CAGCATGCTCTCCGAAGCGGAGGAGCCAGGGAAGTGGCTACAGATGCTTCAATCCAAAACTGGCCGTTCAGGCACAAAAGAAGATCCTGGGCAAA
13 S M L S E A E E P R E V A T D V F N S K N L A V Q A Q K K I L G K

BstEII (771)
BsrGI (764)
701 ATGGTATCCAATCCATCGCCACCACGCTGATCGACGACACCAGCAGCGAGGTGCTAGATGAGCTGTACAGGGTGACCAAGGAGTACCCAGAACAAGA
47 M V S K S I A T T L I D D T S S E V L D E L Y R V T K E Y T Q N K

801 AGGAGGCGGAGAGGTGATCAAGAACCTCATCAAGACGGTCAAGCTGGCCGCTCCACAGGAACAATCAGTTCAATCAAGACGAGCTGGCGCTCAT
80 K E A E R V I K N L I K T V I K L A V L H R N N Q F N Q D E L A L M

PshAI (936)
901 GGAGAAGTTCAAGAAGAAGTGCACCAGCTTGCATGACGGTCTGAGCTTCCACCAGGTAGAGTACACCTTCGACCGCAATGTGCTGTCCAGGCTGCTG
113 E K F K K K V H Q L A M T V V S F H Q V E Y T F D R N V L S R L L

1001 AACGAGTCCGAGAGCTCTACACGAGATCATTACGCGCCACCTTACCGCCAAGTCTCACGGACGGTTAATAATGTCTTTGACATTTTTAGATTGTG
147 N E C R E L L H E I I Q R H L T A K S H G R V N N V F D H F S D C

BsrGI (1115) **PmeI (1134)** **NdeI (1194)**
1101 ATTTTTGGCTGCCTGTACAATCCCTTTGAAAAGTTTAAACCTCACTTACAGAACTTTGCGACGGCATCAACAAAATGTTGGATGAAGAGAACATATG
180 D F L A A L Y N P F G K F K P H L Q K L C D G I N K M L D E E N I •

MscI (1231)
NheI (1225)
1201 AGCTTGCAGAGTAAGATTGTGACCAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAAAAAATGC
213

HpaI (1363) **MfeI (1374)**
1301 TTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAACATTCATTCTTTATGTTTCAGG

EcoRI (1459)
1401 TTCAGGGGGAGGTGTGGGAGTTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTCTAAAATACAGCATAGCAAACTTTAACCTCCAAT
1501 CAAGCCTCTACTTGAATCCTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTGCAGCCTCACCTCTTTCA

SapI (1641) **SspI (1698)**
1601 TGGAGTTAAGATATAGTGTATTTCCCAAGTTTGAAGTCTCTCATTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTAGTAAAA

Swal (1712) **EcoO109I (1773)**
1701 TATTCAGAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTA
1801 GTAGTTGACTTAGGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTGTACTTGAGGGGGATGAGTT
1901 CCTCAATGGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGCTCTGCACATGCCACAGGGCT
130 E I T 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
2001 GACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCCAATG
97 V V R 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

StuI (2137)
2101 GCAATGGCTTCAGCACAGACAGTGACCCTGCCAATGTAGGCCCAATGTGGACAGCAGAGATGATCTCCCCAGTCTTGGTCTGTGCGCCCGCCGACAT
63 A I A 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

BbsI (2283)
XmnI (2279)
2201 GGTGCTTGTGTCTCATAGAGCATGGTGTCTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTCTTCATGGTGGCCCT
30 H K N 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 (2345)
2301 CCTATAGTGAGTCGATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCATAA

2401 ACGAGCTCTGCTTATATAGACCTCCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGAAAGTCCCGTTGATTT

SpeI (2500)
2501 ACTAGTCAAAACAAACTCCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACC

SnaBI (2628)
2601 GCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAAGTCATGTACTGGGCATAATGCCAGGCGGGCCATTT

NdeI (2733)
2701 ACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAA

2801 TGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGCGGGGGTCTTGGCGGTGAGCCAGCGGGCCATTTACCGTAA

PacI (2919)
PstI (2912)
SdaI (2911) **BspLU11I (2929)**
2901 GTTATGTAACGCCTGCAGGTTAATTAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTCCATAGG

3001 CTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTTCCCCCTGGAAGCT

3101 CCCTCGTGCCTCTCCTGTTCCGACCCTGCCGCTTACCGGATACCTGTCCGCCTTTCCTTCGGGAAGCGTGGCGCTTTCATAGCTCACGCTGTAG

3201 GTATCTCAGTTCGGTGTAGGTCGTTGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTCCAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTT

3301 GAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGTACAGAGTTCCTTGA

3401 AGTGGTGGCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATC

3501 CGGCAAACAACACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCT

EagI (3679)
PacI (3659) **SwaI (3668)** **NotI (3678)**
3601 ACGGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCCAATAAAAATATCTTT

3701 ATTTTCATTACATCTGTGTGTTGTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAATAGGCT

3801 GTCCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA