



PvuI (7)
SgfI (6) 1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGCAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
MfeI (82)
101 GAGAAAGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245)
Psp1406I (203) 201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCCCTACCTGAGGCC
PvuII (239)
Bsu36I (291)
301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCTCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
NaeI (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTCTCAACTCTACGTCTTTGTTTCGTTT

KasI (535) 501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTATCATGAGCAAGCTGTCGACGCCAGCCACTACTCCAGGAGT
AgeI (552) 1 M S K L S Q P A T T P G V
BspHI (560)
PvuII (658)
601 GAATGGAATAAGTGTATTACTCAGGCACATGCCAGCGGCTTACAGCAGGTTCTCAGCTGGTGCCTGGGCTGGGGGAGGGGGCAAGGCTGTG
13 N G I S V I H T Q A H A S G L Q Q V P Q L V P A G P G G G G K A V

NcoI (731) 701 CCTCAAGCAAGCAAAGCAAAAAGAGCTCACCCATGGATCGGAATAGTGACGAATACCGCCAGCGCAGAGAGCGGAACAATATGGCGGTGAAAAAAGCC
47 P P S K Q S K K S S P M D R N S D E Y R Q R R E R N N M A V K K S
BsrBI (769)
801 GGTAAAAAGCAAGCAGAAAGCTCAAGATACACTGCAAAGAGTAAACCAGCTCAAGGAAGAGAATGAACGGTTGGAAGCAAAATTAAGTTGCTGACAAA
80 R L K S K Q K A Q D T L Q R V N Q L K E E N E R L E A K I K L L T K

FspI (936)
SphI (933)
901 GGAATTAAGTGTACTGAAAGATTTGTTTCTTGAGCATGCGCACAGCCTCGCAGACAACGTGCAGCCCATCAGCACGGAAACTACAGCGACAAATTTCTGAT
113 E L S V L K D L F L E H A H S L A D N V Q P I S T E T T A T N S D

BglIII (1013) 1001 AACCCAGGCGAGTAGATCTCTTCCAGGCCAGGGCTTCTAGCTGGCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCA
147 N P G Q •
NheI (1038)
MscI (1044)

HpaI (1176) 1101 GTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAAACAAGTTAACAACAACAATTGCATTCAT
MfeI (1187)

EcoRI (1272)
1201 TTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAAACCTCTACAAATGTGGTATGGAATTCTAAAATACAGCATAGCAAACT
1301 TTAACCTCAAATCAAGCCTCTACTTGAATCCTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGAGCC
1401 TCACCTTCTTTCATGGAGTTAAGATATAGTGATTTTCCAAGGTTGAACTAGCTCTTCATTTCTTATGTTTTAAATGCACTGACCTCCACATTCC

SspI (1511) 1501 CTTTTTAGTAAAAATTCAGAAAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGCAGAATCCAGATGCTCAAGGCCCTTCATAAT
Swal (1525)
EcoO109I (1586)
1601 ATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGAACCTTAAATAGAAATGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTACTTG
141 N R T Y K
1701 AGGGGATGAGTTCTCAATGGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACA
134 L P I L 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

BstXI (1815)
1801 TGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCAC
101 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 K Q G N S V

StuI (1950)
1901 AGCAGACCAATGGCAATGGCTTTCAGCAGACAGTACCCTGCAATGTAGGCTCAATGTGGACAGCAGAGATGATCTCCCAAGTCTTGGTCTGATG
68 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 T K T R I

BbsI (2096)
XmnI (2092)
2001 GCCGCCCCGACATGGTGCTTGTGCTCCTCATAGAGCATGGTATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGCTC
34 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 S I N F T K

BspHI (2100) 2101 TCATGATGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACACAGCGTGGATGGCGTCTCCAGCTTATC
1 M
2200 TGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTCGTCATGGGGCGGAGTTGTACGACATTTGGAA

SpeI (2313)
2300 AGTCCCGTTGATTTACTAGTCAAAACAAACTCCCATTGACGTCAATGGGGTGGAGACTTGGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGA

SnaBI (2441)
2399 TGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGACTGCCAAGTAGGAAAGTCCATAAGGTCATGACTGGGCATAATG

NdeI (2546)

2499 CCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACTTGTACTGCTCAAGTGGGCAGTTTACCGTAAATACTCC
2599 ACCCATTGACGTCAATGGAAAGTCCTATTGGCGTTACTATGGGAACATACGTCAATTATTGACGTCAATGGCGGGGGTCGTTGGCGGTCAGCCAGGCG

PstI (2725)
SdaI (2724) **PacI (2732)** **BspLU11I (2742)**

2699 GGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAA TTAAGAACATGTGAGCAAAAGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCTTGC
2797 TGGCGTTTTTCCATAGGCTCCGCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGC
2897 GTTCCCCCTGGAAGCTCCCTCGTGGCTCTCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCCTTCTCCCTTCGGGAAGCGTGGCGCTTCT

ApaLI (3056)

2997 CATAGCTCAGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTCCAGCCGACCCTGCGCCTTAT
3097 CCGGTAACACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGG
3197 TGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGA
3297 GTTGGTAGCTCTTGATCCGGCAAACAACACCACCGCTGGTAGCGGTGGTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAG

EagI (3492)
PacI (3472) **SwaI (3481)** **NotI (3491)**

3397 ATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGGAAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGC
3497 CGCAATAAAATATCTTTATTTTATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCCATCAAAACAAAACGAAACAAAACA
3597 AACTAGCAAAATAGGCTGTCCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA