



PvuI (7)
SgfI (6) 1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
MfeI (82) EcoNI (96)
101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203) 201 GTGAACGTTCTTTTTTCGCAACGGGTTTGGCCGAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCTACCTGAGGCC
HindIII (245) 301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC
EcoNI (287) **Bsu36I (291)**
401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTGGCTGACCCTGTTGCTCAACTCTACGTCTTTGTTTCGTTT

KasI (535) 501 TCTGTTCTGCGCGGTTACAGATCCAAGCTGTGACCGCGCGCTACCTGAGATCACCGGTCATCATGATATACGAAAACCTCCAGAAGTCAAGGATCGAGGA
AgeI (552) 601 GAAAACCCAAGAGCCTGGTAAAGCTCCTTCCCAGTCTTCTGTGGCGCATCCTCTTGGACCCACCTCCTCCTGTTCTCCCTGGGCTCAGCCTCCTG
BspHI (560) 13▶ M I Y E N L Q N S R I E E
13▶ K T Q E P G K A P S Q S F L W R I L S W T H L L L F S L G L S L L

BamHI (724) 701 CTGTTGGTGGTCTCCGTCGATGGATCCAAAATCCAGTAAAGGAGGGACTAGGCACCTGAGAGCCACTTTAGACAACACCACCTCCAAGATAA
AvrII (753) 47▶ L L V V V S V I G S Q N S Q L R R D L G T L R A T L D N T T S K I
BstBI (838) 801 AGGCTGAATTCCAGTCCCTGGACTCCAGGGCTGACAGCTTCGAAAAGGGATCAGTTCTCTGAAAGTGGATGTGGAGGATCACAGCGAGGAACTCGAGGC
BstAPI (885) 80▶ K A E F Q S L D S R A D S F E K G I S S L K V D V E D H R Q E L Q A
BglII (972) 901 AGGCCGAGACTTGAGCCAGAAGGTGACTTCTCTGGAGAGCACAGTGGAGAAGAGGGAGCAGGCTCTCAAAACAGATCTGTCTGATTTAACCGACCATGTG
113▶ G R D L S Q K V T S L E S T V E K R E Q A L K T D L S D L T D H V
1001 CAACAGCTGAGGAAGACTTGAAGGCCCTGACGTGCCAGCTGGCCAACCTCAAGAACACGGCTCGAAAGTGGCTGCTGCCGCTTCACTGGACGGAGC
147▶ Q Q L R K D L K A L T C Q L A N L K N N G S E V A C C P L H W T E

ScaI (1157) 1101 ATGAAGGCAGCTGCTATTGGTTCTCTGAGTCTGAGAAGTCGTGGCCTGAAGCTGACAAGTACTGCCGCTGGAGAATTCACCTGGTGGTGGTCAACTC
DraIII (1180) 180▶ H E G S C Y W F S E S E K S W P E A D K Y C R L E N S H L V V V N S
Bsp120I (1273) 1201 CCTGGAGGAGCAGAATTTCTACAGAATCGCTTAGCCAATGTGGTTAGTTGGATCGGCCTAACGGACCAAAACGGGCCCTGGCGATGGTGGATGGGACC
213▶ L E E Q N F L Q N R L A N V V S W I G L T D Q N G P W R W V D G T
Bsp120I (1325) 1301 GACTTTGAGAAAAGCTTTAAGAAGTGGGCCCACTGCAGCCAGATAACTGTTTGGACACGGACTGGGAGGAGGTGAGGACTGTGCCACATCACTACAG
247▶ D F E K G F K N W A P L Q P D N W F G H G L G G G E D C A H I T T

HpaI (1637) 1601 TGCTTTATTTGTAACATTATAAGCTGCAATAACAAGTTAACAACAACAATTCATTCATTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTT
MfeI (1648)
1701 TAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTCTAAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCTACTTGAATCCTTTTCTG
1801 AGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGTATTTT

SapI (1915) 1901 CCAAGGTTTGAAGTAGCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTTAGTAAAATATTCAGAAAATAATTTAAATACATCA
SspI (1972) 2001 TTGCAATGAAAATAAATGTTTTTTATTAGCGAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAA
SwaI (1986) 2101 CCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTCTCTGGTGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTG
141▶ N R T Y K L P I L E E I T T K V L K
2201 CCATTCTCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGCACATGCCACAGGGGTGACCACCTGATGGATCTGTCCACCT
121▶ 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 E
2301 CATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGCTTGTCTCACAGCAGACCAATGGCAATGGCTTCCAGCACAGACAGTGAC
88▶ 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 (2411) 2401 CCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCACTTGGTCTGATGGCCGCCGACATGGTCTTGTGCTCCTCATAGAGCATG
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
BbsI (2557) 2501 GTGATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGTCTTCATGGTGGCCCTCTATAGTGAGTCGTATTACTATG
XmnI (2553) 21▶ T I K E T A V E V L E L D Q Q S I N F T K M
AseI (2619) 2601 CCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCC

2701 ACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAAACAAACTCCCATTGAC
2801 GTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACT
SnaBI (2902)
2901 AATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCACTGACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCG
NdeI (3007)
3001 TACTTGCCATATGATACACTTGATGTAAGTGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTAT
PacI (3193)
3101 GGGAACATACGTCAATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTGAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAATTA
SdaI (3185)
BspLU11I (3203)
3201 AGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAA
3301 AAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAGATACCAGGCGTTTCCCCTGGAAGTCCCTCGTGGCTCTCCTGTTCCGACC
3401 CTGCCGTTACCGGATACCTGTCCGCCTTTCTCCCTTCGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCC
ApaLI (3517)
3501 GCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTGAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTT
3601 ATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGCGGTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACACT
3701 AGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGA AAAAGATTGGTAGCTCTTGATCCGGCAAAACAAACCACCGCTGGTAGCG
3801 GTGGTTTTTTTGTGTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAAACGA
EagI (3953)
3901 AAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCGCAATAAAATATCTTTATTTTCATTACATCTGTGTGTGGTT
PacI (3933) SwaI (3942) NotI (3952)
4001 TTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAAACAAAACGAAAACAAAACAACTAGCAAAATAGGCTGTCCCAGTGCAAGTGCAGGTGCCAG
4101 AACATTTCTCTATCGAA