



PvuI (7)
SgfI (6) 1 GGATCTGCATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA

101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTATGTCGTGACTGGCTCCGCTTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203) 201 GTGAACGTTCTTTTTTCGAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCCTTACCGCGCCCGCCCTACCTGAGGCC

HindIII (245) 301 GCCATCCACGCCGGTTGAGTCGGTTCGCGCCTCCCGCTGTGGTGCTCCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

Bsu36I (291)

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

NgoMIV (441)

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCTACCTGAGATCACCGGTCAGCATGCCGGAGGAAGGTCGCCCTTGCCCTGGGTTGCTG

AgeI (552) SphI (560) 1▶ M P E E G R P C P W V R W

BsrBI (600) 601 GAGCGGGACCGGTTCCAGCGCAATGGCCATGGCTGCTGCTGGTGGTGTATTACTGTGTTTTGCTGTTGGTTTCATTGTAGCGGACTACTCAGTAAG

NcoI (628) 13▶ S G T A F Q R Q W P W L L L V V F I T V F C C W F H C S G L L S K

701 CAGCAACAGAGGCTGCTGGAGCACCCCTGAGCCGCACACAGCTGAGTTACAGCTGAATCTCACAGTTCTCCTCGAAGGACCCACACTGCGCTGGGGAGCAG

47▶ Q Q Q R L L E H P E P H T A E L Q L N L T V P R K D P T L R W G A

BstXI (861) 801 GCCAGCCTTGGGAAGGTCCTTACACACCGACCAGAGCTGGAGGAGGCCATCTGCGTATCCATCAAGATGGCCTCTACAGGCTGCATATCCAGGTGAC

80▶ G P A L G R S F T H G P E L E E G H L R I H Q D G L Y R L H I Q V T

SapI (911) 901 ACTGGCCAACTGCTCTTCCAGGCAGCACCCCTGCAGCACAGGGCCACCTGGCTGTGGGCATCTGCTCCCCCGCTGCGCACGGCATCAGCTTGTGCGT

PstI (931) 113▶ L A N C S S P G S T L Q H R A T L A V G I C S P A A H G I S L L R

XcmI (944)

FspI (975)

BsrGI (1018) 1001 GGGCGCTTTGGACAGGACTGTACAGTGGCATTACAGCGCCTGACATACCTGGTCCACGGAGATGTCCTCTGTACCAACCTCACCTGCCTCTGCTGCCGT

147▶ G R F G Q D C T V A L Q R L T Y L V H G D V L C T N L T L P L L P

NheI (1175) 1101 CCCGAACGCTGATGAGACCTTCTTTGGAGTTCAGTGGATATGCCCTTGACCACAACCTCAGGATGACTTGTGAAGCTAGCTGGCCAGACATGATAAGAT

180▶ S R N A D E T F F G V Q W I C P •

1201 ACATTGATGAGTTTGACAAACCACAACCTAGAAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATATAAG

HpaI (1313) 1301 CTGCAATAAACAAAGTTAACAAACAATTGCATTTCATTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAA

MfeI (1324)

EcoRI (1409) 1401 TGTGGTATGGAATTCTAAATACAGCATAGCAAACTTAACTCCAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATC

1501 AGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTTAAAGATATAGTGTATTTTCCAAGGTTTGAAGTACTAGCTCTTCAAT

SapI (1591)

1601 TTCTTTATGTTTTAAATGCAGTACCTCCACATTCCCTTTTTAGTAAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAAATAATGTTTTTT

SspI (1648)

Swal (1662)

1701 ATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAA

1801 GAAAGCGAGCTTCTAGCTTTAGTTCTGGTGTACTTGAGGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCTCAATGAGCACAAG

141▶ • 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

1901 CAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCTGACAG

SacI (1923) 113▶ 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 D S Y P H R V A

BstXI (1952)

2001 CCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCCAAATGGCAATGGCTTTCAGCACAGACAGTACCCTGCCAATGTAGGCCTCAATGTG

StuI (2087) 80▶ 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 R G I Y A E I H

2101 GACAGCAGAGATGATCTCCCGTCTTGGTCTGATGGCCGCCCGACATGGTGTCTTGTCTCATAGAGCATGGTGTCTTCTCAGTGGCGACCTCC

47▶ 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 T I K E T A V E

BbsI (2233)

XmnI (2229) 2201 ACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGCTTTCATGGTGGCCCTCTATAGTGTGATTATACTATGCCGATATACTATGCCGATGATTAA

13▶ V L E L D Q Q S I N F T K M

AseI (2295)

2301 TTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATT

SacI (2352)

2401 GCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCC GTT GATTTACTAGTCAAACAAACTCCCATTGACGTCAATGGGGTGGAGACTTGAAAA
SpeI (2450)

 2501 TCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTA
SnaBI (2578)

 2601 GGAAAGTCCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACTTGTAT
NdeI (2683)

 2701 GTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGT

PacI (2869)
PstI (2862)
SdaI (2861)
BspLU11I (2879)
 2801 CAATGGGCGGGGTCGTTGGGCGGTGAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCCTGCAGGTTAATTAAGAACATGTGAGCAAAGGCCAGC

 2901 AAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTG

 3001 GCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTTCCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCC

ApaLI (3193)
 3101 GCCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTTCGCTCCAAGCTGGGCTGTGTGCACG

 3201 AACCCCCGTTTACGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGG

 3301 TAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGC

 3401 GCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTGTGTTGCAAGCAGC

 3501 AGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACACTCACGTTAAGGGATTTTGGT

EagI (3629)
PacI (3609) Swal (3618) NotI (3628)
 3601 CATGGCTAGTTAATTAACATTTAAATCAGCGGCCGCAATAAAATATCTTTATTTTCATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACAT

 3701 ACGCTCTCCATCAAACAAAACGAAACAAAACAAACTAGCAAATAGGCTGTCCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA