

PvuI (7)
SgfI (6)
EcoNI (96)

1 GGATCTGCATCGCTCCGGTGCCCGTCAGTGGCAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203)
HindIII (245)
Bsu36I (291)

201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCTACCTGAGGGCC
 301 GCCATCCACGCGGTTGAGTGCAGTTCGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)

401 GGGCCTTTGTCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

BspLU11I (560)

501 TCTGTTCTGCGCGGTTACAGATCCAAGCTGTGACCGCGCGCTACCTGAGATCACCGGTCAACATGTTCCATGTTTCTTTAGGTATATCTTTGGACTTCC
1▶ M F H V S F R Y I F G L P

ClaI (694)

601 TCCCTGATCCTTGTCTGTTGCCAGTAGCATCATCTGATTGTGATATTGAAGTAAAGTGGCAAACAATATGAGAGTGTCTAATGGTCAGCATCGAT
 13▶ P L I L V L L P V A S S D C D I E G K D G K Q Y E S V L M V S I D
 701 CAATTATTGGACAGCATGAAAGAAATTGGTAGCAATTGCTGAATAATGAATTTAACTTTTTAAAAGACATATCTGTGATGCTAATAAGGAAGGTATGT
 47▶ Q L L D S M K E I G S N C L N N E F N F F K R H I C D A N K E G M

BsaBI (856)

801 TTTTATCCGTGCTGCTCGCAAGTTGAGCAATTTCTTAAAATGAATAGCACTGGTGTGATTTTGATCTCCACTTATTAAGTTTTCAGAAGGCACAACAAT
 80▶ F L F R A A R K L R Q F L K M N S T G D F D L H L L K V S E G T T I

MscI (915)
PvuII (938)

901 ACTGTTGAACTGCCTGGCCAGGTTAAAGGAAGAAAACAGCTGCCCTGGGTGAAGCCCAACCAAAAGAGTTTGAAGAAAAATAATCTTTAAAGGAA
 113▶ L L N C T G Q V K G R K P A A L G E A Q P T K S L E E N K S L K E
 1001 CAGAAAAAAGTGAATGACTTGTGTTTCTTAAAGAGACTATTACAAGAGATAAAAACCTGTTGGAATAAAAATTTGATGGGCACTAAAGAACACTGAAAAA
 147▶ Q K K L N D L C F L K R L L Q E I K T C W N K I L M G T K E H •

MscI (1147)

NheI (1141)

1101 TATGGAGTGGCAATATAGAAACACGAACCTTAGCTGCATCCGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAAT

HpaI (1279)

1201 GCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAATTGCATT

EcoRI (1375)

1301 CATTTTATGTTTCAGGTTACAGGGGAGGTGTTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAATGTGGTATGGAATTCTAAAATACAGCATAGCAAA
 1401 ACTTTAACCTCCAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCA

SapI (1557)

1501 GCCTCACCTTCTTTCATGGAGTTAAGATATAGTGATTTTCCCAAGGTTGAACTAGCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACAT

SspI (1614)
SwaI (1628)
EcoO109I (1689)

1601 TCCTTTTTATGATAAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCAT
 1701 AATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTAC
141▶ • N R T Y

SacI (1889)

1801 TTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCACTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGC
 135▶ 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 I L E R C

BstXI (1918)

1901 ACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCT
 102▶ 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 K Q G N S

StuI (2053)

2001 CACAGCAGACCAATGGCAATGGCTTCAGCACAGACAGTGACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCAGTCTTGGTCTCTG
 69▶ 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 T K T R

BbsI (2199)

XmnI (2195)

2101 ATGGCCGCCCGACATGGTGCTTGTGCTCATAGAGCATGGTATCTTCTCAGTGGCGACCTCCACAGCTCCAGATCCTGCTGAGAGATGTTGAAGG
 35▶ 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 S I N F T

AseI (2261)

2201 TCTTCATGGTGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTA
 2▶ K M

SacI (2318)

2301 TCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGG

SpeI (2416)


2401 AAAGTCCCGTTGATTTACTAGTCAAACAAACTCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCGTGAGTCAAACCGCTATCCAGCCCATTTG

2501 ATG TACTGCCAAAACCGCATCATCATGGAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCATG TACTGGGCATAAT
SnaBI (2544)

2601 GCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTC
NdeI (2649)

2701 CACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCAATTATTGACGTCAATGGCGGGGGTCGTTGGGCGGTCAGCCAGGC

2801 GGGCCATTTACCGTAAGTTATGTAACGCCTGCAGGTTAATTAAAGAACATGTGAGCAAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCT
PacI (2835)
PstI (2828)
SdaI (2827)
BspLU11I (2845)

2901 GGC GTTTTCCATAGGCTCCGCCCCCTGACGAGCATC AAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCG


3001 TTTCCCCCTGGAAGCTCCCTCGTGCCTCTCTGTTCGACCCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTC

3101 ATAGCTCACGCTGTAGGTATCTCAGTTCGGGTAGGTCGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTTCAGCCGACCGCTGCGCCTTATC
ApaLI (3159)

3201 CGGTA ACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGT

3301 GCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGA AAAAGAG

3401 TTGGTAGCTCTTGATCCGCAAACAAACCACCGCTGGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGA

3501 TCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCC
EagI (3595)
PacI (3575) **SwaI (3584)** **NotI (3594)**

3601 GCAATAAAATATCTTTATTTTATTACATCTGTGTGTTGTTTTTTTGTGTAATCGTAACTAACATACGCTCTCCATCAAAAACAAAACGAAAACAAAACAA

3701 ACTAGCAAATAGGCTGTCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA