



PvuI (7)
SgfI (6) **MfeI (82)**
1 GGATCTGCATCGCTCCGGTGCCCGTCAGTGGCAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
101 GAGAAGTGGCGCGGGTAAACTGGAAAGTGATGTCGTACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203)
HindIII (245)
Bsu36I (291)
201 GTGAACGTTCTTTTTCGCAACGGGTTTGGCCGACAGTGAAGCTTCGAGGGCTCGCATCTCTCTTACAGCGCCCGCCGCCCTACCTGAGGCC
301 GCCATCCACGCGGTTGAGTGCCTTCTGCCGCTCCCGCTGTGGTGCCTCTGAAGTGCCTCCGCGCTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

KasI (535)
AgeI (552)
BspLU11I (560)
501 TCTGTTCTGCGCGTTACAGATCCAAGCTGTGACCGCGGCTACCTGAGATCACCGGTCAACATGTTTGGAGCAGCCTGATCCAGGGCTCCATCCTGAA
1 M F E A R L I Q G S I L K

StuI (635)
601 GAAGTGTCTGAGGCTCTCAAAGACCTCATCAATGAGGCTGTGGAGCTCAGTCTGGGCGGCTGAACCTGCAGAGCATGGACTCGTCTCAGTCTCC
13 K V L E A L K D L I N E A C W D V S S G G V N L Q S M D S S H V S

NcoI (761)
701 TTGGTACAGCTTACTCTGCGCTCCGAAGGCTTCGACACATACCGCTGCGACCGCAACCTAGCCATGGGCGTGAACCTCACCAGCATGTCCAAAATTCTAA
47 L V Q L T L R S E G F D T Y R C D R N L A M G V N L T S M S K I L

BstBI (868)
801 AATGTGCTGGTAATGAAGACATCATTACATTAAGGGCTGAAGATAATGCAGACACCTTAGCACTAGTATTTCGAAGCACAAATCAAGAGAAAGTTTCAGA
80 K C A G N E D I I T L R A E D N A D T L A L V F E A P N Q E K V S D

BbsI (814)
SpeI (861)
Bsp119I (868)
PvuII (960)
901 CTATGAAATGAAGTTAATGGACTTAGATGTGGAGCAACTTGAATCCCAGAACAGGAGTACAGCTGTGTAATAAAGATGCCGTGGGTGAATTTGCACGT
113 Y E M K L M D L D V E Q L G I P E Q E Y S C V I K M P S G E F A R

EcoRV (1038)
1001 ATATGCCGAGACCTTAGCCACATTGGAGATGCTGTGATATCCTGTGCAAAGATGGGGTGAAGTTTCTGCAAGTGAGAGCTTGGCAATGGGAACA
147 I C R D L S H I G D A V V I S C A K N G V K F S A S G E L G N G N

XmnI (1197)
1101 TTAAGTTGTCAAAACAAGTAATGTGGATAAAGAAGAGGCGGTAACCATAGAGATGAATGAGCCTGTTACCTAACGTTTGTCTGAGGTACCTGAA
180 I K L S Q T S N V D K E E A V T I E M N E P V H L T F A L R Y L N

1201 CTTTTTCAAAAAGCCACTCCACTGTCTCCTACAGTAACACTCAGTATGTCTGCAGATGTGCCCTTGTGTAGAGTATAAAATTGCTGACATGGGACAC
213 F F T K A T P L S P T V T L S M S A D V P L V V E Y K I A D M G H

MscI (1369)
1301 TTAAGTATTATTTGGCTCCCAAGATTGAAGATGAGGAAGCATCTTAGGCATTGCTAGAAATTGCTAGCTGGCCAGACATGATAAGATACATTGATGAGT
247 L K Y Y L A P K I E D E E A S •

1401 TTGGCAAACCACTAGAATGCAGTGAATAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACA

HpaI (1501)
MfeI (1512)
EcoRI (1597)
1501 AGTTAACAACAACAAATTGCATTCATTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAA
1601 TTCTAAAATACAGCATAGCAAACTTTAACCTCCAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGC

SapI (1779)
1701 CAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGTATTTTCCAAGGTTTGAAGTACTCTTCAATTTCTTTATGTTT

SspI (1836)
SwaI (1850)
1801 TAAATGCACTGACCTCCACATTCCCTTTTATGTAATAATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAAT

EcoO109I (1911)
1901 CCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTGTAGTGTGGACTTAGGGAACAAAGGAACCTTTAATAGAAAATGGACAGCAAGAAAGCGAGCTT
2001 CTAGCTTTAGTTCCTGGTACTTGGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAGCAGTCAAGGAGCA
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 C D P A

SacI (2111)
BstXI (2140)
2101 TAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGT
109 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 V I T D

StuI (2275)
2201 CAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTACGACAGACAGTACCTGCAATGTAGGCTCAATGTGGACAGCAGAGAT
76 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 V A S I

2301 GATCTCCCAAGTCTTGGTCTGATGGCCGCCCCGACATGGTGTCTTGTCTCATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGA
43 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 V L E L

BbsI (2421)
XmnI (2417)
AseI (2483)
2401 TCCTGCTGAGAGATGTTGAAGGTCTCATGGTGGCCCTCCTATAGTGAGTCTGATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAG
94 D Q Q S I N F T K M

2501 CGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGG
SacI (2540)

2601 CGGAGTTGTTACGACATTTTGAAAGTCCCCTTGATTTACTAGTCAAAACAACTCCCATTGACGTCAATGGGTGGAGACTTGAAATCCCCGTGAGTC
SpeI (2638)

2701 AAACCGCTATCCACGCCATTGATGTAAGTCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGACTGCCAAGTAGGAAAGTCCCAT
SnaBI (2766)

2801 AAGGTCATGTAAGTGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTAAGTCCCAAGT
NdeI (2871)

2901 GGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGAAACATACGTCATTATTGACGTCAATGGGCGGGG

3001 GTCGTTGGGCGGTACGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCCTGCAGGTTAATTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGA
SdaI (3049)
PacI (3057)
BspLU11I (3067)

3101 ACCGTAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGAC
PacI (3057)

3201 AGGACTATAAAGATACCAGGCGTTTTCCCCTGGAAGCTCCCTCGTGGCGTCTCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCT

3301 TCGGGAAGCGTGGCGCTTTCTCATAGCTCAGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTCC
ApaLI (3381)

3401 AGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAG

3501 CAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAG

3601 CCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTGGTTGCAAGCAGCAGATTACGCGCA

3701 GAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGGAAACGAAACTCACGTTAAGGGATTTTGGTCATGGCTAGTTA
PacI (3797)

3801 ATTAACATTTAAATC AGCGGCCGCAATAAAATATCTTTATTTTTCATTACATCTGTGTGGTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATC
EagI (3817)
SwaI (3806)
NotI (3816)

3901 AAAACAAAACGAAACAAAACAACTAGCAAAATAGGCTGTCCCAGTGAAGTGACAGGTGCCAGAACATTTCTCTATCGAA