



PvuI (7)
SgfI (6)
MfeI (82) **EcoNI (96)**

1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203)
Bsu36I (291)

201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTACAGCGCCCGCCGCTACCTGAGGCC
 301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
NaeI (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGTCTTTGTTTCGTTT

KasI (535)
NcoI (560)

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCCTACCTGAGATCACCGGTACCATGGTGTGCGTTCCTGTTCTAGCTGCGGCCGAGGAGC
EagI (587)
NotI (586)

1▶ M V C V L V L A A A A G A

NcoI (644)
XmaI (659)

601 TGTGGCGTTTTCTAATCCTGCAATATGGGTAGTGCTTCGTTCCATGGACGTTACGCCCGGAGTCTCTCAGTATCTTGGTAGTGCTGGTCCGGT
 13▶ V A V F L I L R I W V V L R S M D V T P R E S L S I L V V A G S G

Bsu36I (717)

701 GGGCATACTGAGATCCTGAGGCTGCTGGGAGCTTGTCCAATGCCTACTACCTAGACATTATGTCATTGCTGACACTGATGAAATGAGTGCCAATA
 47▶ G H T T E I L R L L G S L S N A Y S P R H Y V I A D T D E M S A N

Bst1107I (849)
EcoRI (872)

801 AAATAAATCTTTTGAAGTACGAGCTGATAGAGACCCTAGTAACATGTATACAAATACTACATTACCGAATCCAAGAAGCCGGGAGGTTTCAGCA
 80▶ K I N S F E L D R A D R D P S N M Y T K Y I H R I P R S R E V Q Q

DraIII (961)

901 GTCCTGGCCCTCCACCGTTTTCCACACCTGCACTCCATGTGGCTCTCCTTTCCCTAATTACAGGGTGAAGCCAGATTTGGTGTGTGTAACGGACCA
 113▶ S W P S T V F T T L H S M W L S F P L I H R V K P D L V L C N G P

Psp1406I (1098)

1001 GGAACATGTGTTCTATCTGTGTATCTGCCCTTCTCCTGGGATACTAGGAATAAAGAAAGTATGTCATTGCTACGTTGAAAGCATCTGCCGTGTAGAAA
 147▶ G T C V P I C V S A L L L G I L G I K K V I I V Y V E S I C R V E

BspEI (1111)
NgoMIV (1158)

1101 CGTTATCCATGTCGGAAAGATTCTGTTTCATCTCTCAGATTACTTCATTGTTTCAGTGGCCGGCTCTGAAAGAAAAGTATCCCAAATCGGTGTACCTTGG
 180▶ T L S M S G K I L F H L S D Y F I V Q W P A L K E K Y P K S V Y L G

MscI (1240)

1201 GCGAATTGTTGACAAATGGCAACTGACTTCTTTGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAAGTGAAGTGCAGTGA
 213▶ R I V •

HpaI (1372)
MfeI (1383)

1301 AAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAAACAATTGCATTCAATTTA

EcoRI (1468)

1401 TGTTTCAGGTTACAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAATGTGGTATGGAATTTCTAAAATACAGCATAGCAAACTTTAA
 1501 CCTCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCAC
 1601 CTTCTTTTCATGGAGTTTAAAGATATAGTGTATTTTCCCAAGTTTGAAGTACTCTTCTTTTATGTTTTAAATGCACTGACCTCCACATCCCTTT

SspI (1707)
SwaI (1721)
EcoO109I (1782)

1701 TTAGTAAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCC
 1801 CCCAGTTTAGTAGTTGGACTTAGGGAACAAAGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTCTGGTACTTGGGG
141▶ • N R T Y K L P

SacI (1982)

1901 GGATGAGTTCCTCAATGGTGGTTTTGACCAGTTCGCAATTCATCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCC
 133▶ 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 M G

BstXI (2011)

2001 ACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCA
 100▶ 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 A

StuI (2146)

2101 GACCCAATGGCAATGGCTTCAGCACAGACAGTACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCAGTCTTGGTCTGATGGCCG
 66▶ 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 A A

BspHI (2296)

BbsI (2292)

XmnI (2288)

2201 CCCCACATGGTCTTGTGTCCTCATAGAGCATGGTATCTTCTCAGTGGGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGCTTTCAT
 33▶ 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 M

AseI (2354)

2301 GATGGCCCTCTATAGTGAAGTCTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTATCTGACC

2401 ^{SacI (2411)} GTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGAAAAGTCC

2501 ^{SpeI (2509)} CGTTGATTTACTAGTCAAAACAAACTCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTAC

2600 ^{SnaBI (2637)} TGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGG

2700 ^{NdeI (2742)} CGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACTTGTACTGCTCAAGTGGGCAGTTTACCGTAAATACTCCACCCA

2800 TTGACGTCAATGGAAAGTCCTATTGGCGTTACTATGGGAACATACGTCAATTATTGACGTCAATGGGGGGGGTCTGTTGGCGGTCAGCCAGGCGGGCCA

2900 ^{PstI (2921)} ^{SdaI (2920)} ^{PacI (2928)} TTTACCGTAAGTTATGTAACGCTGCAGGTTAA TTAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCTTGTGGCC

2998 TTTTCCATAGGCTCCGCCCCCTGACGAGCATCAAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTC

3098 CCCCTGGAAGCTCCCTCGTGGCTCTCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCCTTCTCCCTTCGGGAAGCGTGGCGCTTCTCATAG

3198 ^{ApaLI (3252)} CTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTTCAGCCCAGCCGCTGCGCCTTATCCGGT

3298 AACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTA

3398 CAGAGTTCCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGG

3498 TAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCT

3598 ^{PacI (3668)} ^{SwaI (3677)} ^{EagI (3688)} ^{NotI (3687)} TTGATCTTTTCTACGGGTCTGACGCTCAGTGGAAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGCAA

3698 TAAAATATCTTTATTTTATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTA

3798 GCAAAATAGGCTGTCCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA