



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

1 GGATCTGGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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

201 GTGAACGTTCTTTTTTCGCAACGGGTTTGGCCGACAGTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCCTACCTGAGGCC
 301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
NaeI (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGTCTTTGTTTCGTTT

NcoI (560)
BstEII (555)

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCCTACCTGAGATCACCGGTACCATGGGAAATGAGCGGAGTTACCTTTGGAAATGTGCTC
1▶ M G N E A S Y P L E M C S

HindIII (646)

601 ACACCTTTGATGCTGATGAAATTAAGGCTAGGAAAGAGATTCAAGAAGCTTGATTTGGACAATTCTGTTCTTTGAGCGTGGAAAGAGTTCATGTCTCTG
 13▶ H F D A D E I K R L G K R F K K L D L D N S G S L S V E E F M S L
 701 CCTGAGTTACAGCAGAACCCTTTAGTACAGCGGTAATAGATATATCCACACAGACGGCAACGGAGAAGTGGACTTCAAAGAATTCATTGAAGGAGTGT
 47▶ P E L Q Q N P L V Q R V I D I F D T D G N G E V D F K E F I E G V
 801 CTCAGTTCAGTGTCAAAGCGATAAGGAACAGAAGTTGAGGTTTCTTTTCTATCTATGACATGGATAAAGATGGCTATATTTCCAATGGAGAACTCTT
 80▶ S Q F S V K G D K E Q K L R F A F R I Y D M D K D G Y I S N G E L F
 901 CCAGGTGTGAAGATGATGGTGGCAACAATCTGAAAGATACACAATTACAGCAGATTGTAGACAAAACATAATAAATGCAGATAAGGATGGAGATGGA
 113▶ Q V L K M M V G N N L K D T Q L Q Q I V D K T I I N A D K D G D G

EcoRV (1042) **NheI (1086)**

1001 AGAATATCCTTTGAGGAATCTGTGCTGCTGCTAGGTGGCTAGATATCCACAAAAGATGGTGGTGGATGTGTGACTCTTTGAAGAGCTAGTGGCCAGA
 147▶ R I S F E E F C A V V G G L D I H K K M V V D V •

1101 CATGATAAGATACATTGATGAGTTGGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTA

HpaI (1224) **MfeI (1235)**

1201 ACCATTATAAGCTGCAATAAACAAGTTAACAACAACAATTGCATTCTTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAA
 1301 ACCTCTACAAATGTGGTATGGAATTCTAAAATACAGCATAGCAAACTTTAACCTCCAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAG
▶
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SspI (1559) **SwaI (1573)**

1501 TAGCTCTTCATTTCTTTATGTTTAAATGCACTGACCTCCACATTCCCTTTTATGATAAATTCAGAAATAATTTAAATACATCATTGCAATGAAAT

EcoO109I (1634)

1601 AAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGAACCTTTAATAGAAA
 1701 TTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTGTACTTGAGGGGATGAGTTTCTCAATGGTGGTTTTGACCAGCTTGCCATTCTCTCAA
141▶
• N R T Y K L P I L E E I T T K V L K G N M E I

SacI (1834) **BstXI (1863)**

1801 TGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGG
 117▶ 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 D S Y P

StuI (1998)

1901 GTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAGCACAGACAGTGACCCTGCCAATGTAG
 84▶ 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 R G I Y
 2001 GCCTCAATGTGGACAGCAGAGATGATCTCCCAGTCTGGTCTGTGATGGCCGCCCCGACATGGTCTTGTGCTCATAGAGCATGGTGTCTCTCAG
 50▶ 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 T I K E T

BspHI (2148)
BbsI (2144)
XmnI (2140)

2101 TGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGCTTTCATGATGGCCCTCTATAGTGAGTCGATTATACATGCGGATATACTATG
 17▶ A V E V L E L D Q Q S I N F T K M

AseI (2206) **SacI (2263)**

2201 CCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCCACCGTACACGCC

SpeI (2361)

2300 TACCGCCATTTGCGTCAATGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAACAAACTCCATTGACGTCAATGGGGT

SnaBI (2489)

2399 GGAGACTTGAAATCCCCGTGAGTCAAACCCTATCCACGCCATTGATGTAAGTCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGAT

2499 GTACTGCCAAGTAGGAAAGTCCCATAAGGTCATGACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATA **NdeI (2594)**

2599 TGATACACTTGATGACTGCCAAGTGGGCGATTTACCGTAAATACTCCACCCATTGACGTCAATGAAAGTCCCTATTGGCGTTACTATGGGAACATACG

2699 TCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTGAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCCTGCAGGTTAA TTAAGAACATGT **PstI (2773)** **SdaI (2772)** **PacI (2780)** **BspLU11I (2790)**

2797 GAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGACG

2897 CTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCCTCTCTGTTCCGACCCTGCCGCTT

2997 ACCGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCATAGCTCACGCTGTAGGTATCTCAGTTCCGGTGTAGGTGCTTCGCTCCAAGC

3097 TGGGCTGTGTGCACGAACCCCCGTTCCAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACT **ApaI (3104)**

3197 GGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCCTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACA

3297 GTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTTTGATCCGGCAAACAACCCGCTGGTAGCGGTGGTTTTT

3397 TTGTTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGAACGAAAACCTCACG

3497 TTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCGCAATAAAATATCTTTATTTTCATTACATCTGTGTGTTGGTTTTTTGTGTG **EagI (3540)** **PacI (3520)** **Swal (3529)** **NotI (3539)**

3597 AATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGTGCAAGTGCAGGTGCCAGAACATTTCT

3697 CTATCGAA