



PvuI (7)
SgfI (6) 1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
MfeI (82) EcoNI (96)

101 GAGAAAGTGGCGCGGGTAAACTGGAAAGTGATGTCGTACTGGCTCCGCCTTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203) **HindIII (245)** **Bsu36I (291)**
EcoNI (287)

201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTACAGCGCCCGCCCTACCTGAGGCC

301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCTCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGTCTTTGTTTCGTTT

NcoI (560)
BstEII (555)
AgeI (552) **BamHI (569)**

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTCACCATGGCCCGGATCCCAAGACCCTAAAGTTCGTCGTCGT
1▶ M A R I P K T L K F V V V

601 CATCGTCGCGGTCCTGCTGCCAGTCTAGCTTACTCTGCCACCACTGCCCGCAGGAGGAAGTCCCCAGCAGACAGTGGCCCAACAGCAACAGAGGCAC
13▶ I V A V L L P V L A Y S A T T A R Q E E V P Q Q T V A P Q Q R H

701 AGCTTCAAGGGGAGGAGTGTCCAGCAGGATCTCATAGATCAGAACATACTGGAGCCTGTAACCCGTGCACAGAGGGTGTGGATTACACCAACGCTTCCA
47▶ S F K G E E C P A G S H R S E H T G A C N P C T E G V D Y T N A S

BsrGI (823) **DraIII (879)**

801 ACAATGAACCTTCTTGTCCCATGTACAGTTTGTAAATCAGATCAAAAACATAAAAGTTCCTGCACCATGACCAGAGACACAGTGTGTGAGTGTAAAGA
80▶ N N E P S C F P C T V C K S D Q K H K S S C T M T R D T V C Q C K E

901 AGGCACCTTCGGGAATGAAACTCCCGAGAGATGTCCGGAAGTGTAGCAGGTGCCCTAGTGGGGAAGTCCAAGTCAGTAATTGTACGTCCTGGGATGAT
113▶ G T F R N E N S P E M C R K C S R C P S G E V Q V S N C T S W D D

EcoRV (997)

1001 ATCCAGTGTGTTGAAGAATTTGGTGCCAATGCCACTGTGGAAACCCAGCTGCTGAAGAGACAATGAACACCAGCCCGGGGACTCCTGCCCCAGCTGCTG
147▶ I Q C V E E F G A N A T V E T P A A E E T M N T S P G T P A P A A

1101 AAGAGACAATGAACACCAGCCAGGACTCCTGCCAGCTGCTGAAGAGACAATGACCACCAGCCCGGGGACTCCTGCCCCAGCTGCTGAAGAGACAAT
180▶ E E T M N T S P G T P A P A A E E T M T T S P G T P A P A A E E T M

1201 GACCACCAGCCCGGGGACTCCTGCCCCAGCTGCTGAAGAGACAATGACCACCAGCCCGGGGACTCCTGCCTCTTCTCATTACCTCTCATGCACCATCGTA
213▶ T T S P G T P A P A A E E T M T T S P G T P A S S H Y L S C T I V

NheI (1397)

1301 GGGATCATAGTTCTAATTGTCTTCTGATTGTGTTTGTGAAAGACTTCACTGTGGAAGAAATTCCTTCCTTACCTGAAAGTTTCAGGTAGCGCTGCT
247▶ G I I V L I V L L I V F V •

MscI (1403)

1401 AGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTG

HpaI (1535) MfeI (1546)

1501 CTTTATTTGTAACCATTATAAGCTGCAATAAACAGTTAACAAACAATTGCATTATTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTTA

EcoRI (1631)

1601 AAGCAAGTAAACCTCTACAAATGTGGTATGGAATTCTAAAATACAGCATAGCAAACCTTAACTCCAAATCAAGCCTCTACTTGAATCCTTTTCTGAG

1701 GGATGAATAAGGCATAGGCATCAGGGGCTGTGCCAATGTGCATTAGCTGTTGCAGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGTATTTCC

SapI (1813) **SspI (1870)** **SwaI (1884)**

1801 AAGGTTTGAAGTACTCTTTCATTCTTTATGTTTTAAATGCAGTACCTCCACATTCCTTTTTAGTAAAATTCAGAAAATTTAAATACATCATT

EcoO109I (1945)

1901 GCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACC

2001 TTTAATAGAAATTTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTCGGTGACTTGGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCC
141▶ • N R T Y K L P I L E E I T T K V L K G

SacI (2145) **BstXI (2174)**

2101 ATTCACTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGTCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCA
121▶ N M E I 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

2201 TCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAGCACAGACAGTACCC
87▶ D S Y P 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

StuI (2309)

2301 TGCCAATGTAGGCTCAATGTGGACAGCAGAGATGATCTCCCGAGTCTTGGTCTGATGGCCGCCCGACATGGTGTGTTGCTCCTCATAGAGCATGGT
54▶ G I Y 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

BbsI (2455)

2401 GATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGTCTTCATGGTGGCCCTCTATAGTGAGTCGTATTATACTATGCC
21▶ I K E T A V E V L E L D Q Q S I N F T K M

AseI (2517) **SacI (2574)**

2501 GATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACCTAAACGAGCTCTGCTTATATAGACCTCCAC

2601 CGTACACGCCTACGCCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGAAAAGTCCCGTTGATTTACTAGTCAAAAACAAACTCCCATTGACGT
2701 CAATGGGGTGGAGACTTGAAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAA
SnaBI (2800)
2801 TACGTAGATGTACTGCCAAGTAGGAAAGTCCCATAAGGTCACTGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTA
NdeI (2905)
2901 CTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCATTGACGTCAATGGAAAAGTCCCTATTGGCGTTACTATGG
PacI (3091)
PstI (3084)
SdaI (3083)
3001 GAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTCAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAATAAG
BspLU11I (3101)
3101 AACATGTGAGCAAAAGGCCAGAAAAGGCCAGGAACCGTAAAAAGGCCGCTTGTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAA
3201 ATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACCT
3301 GCGGCTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTTCATAGCTCAGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCG
ApaLI (3415)
3401 TCCAAGCTGGGCTGTGTGCACGAACCCCCGTTCCAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTAT
3501 CGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAG
3601 AAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGT
3701 GGTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAAACGAAA
EagI (3851)
PacI (3831) **SwaI (3840)** **NotI (3850)**
3801 ACTCACGTTAAGGGATTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGAATAAAATATCTTTATTTTTCATTACATCTGTGTGTTGGTTTT
3901 TTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAAATAGGCTGTCCCCAGTGCAAGTGCAGGTGCCAGAA
4001 CATTCTCTATCGAA