



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

101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245) **Bsu36I (291)**
Psp1406I (203) PvuII (239) EcoNI (287)
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTACAGCGCCGCCGCCCTACCTGAGGCC

301 GCCATCCACGCCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCGGCTCTCCACGCTTGGCTGACCCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

BspLU11I (560)
AgeI (552)
501 TCTGTTTTCGCGCGTTACAGATCCAAGCTGTGACCGCGCGCTACCTGAGATCACCGGTCAACATGTTACAGGCGTGCAAAATGGAAGGGTTCCCT

1 M L Q A C K M E G F P L

BbsI (613)
598 CGTCCCCCTCCATCAGAAGACCTGGTGCCTATGACACGGATCTATACCAACGCCAAACGCACGAGTATTACCCTATCTCAGCAGTGTGGGAGAGC

12 V P P P S E D L V P Y D T D L Y Q R Q T H E Y Y P Y L S S D G E S

ApaLI (733)
BbrPI (730)
DraIII (727)
698 CATAGCGACCATTACTGGGACTTCCACCCACCACCGTGCACAGCGAGTTCGAGAGCTTCGCCGAGAACAACCTCACGGAGCTCCAGAGCGTGCAGCCCC

46 H S D H Y W D F H P H H V H S E F E S F A E N N F T E L Q S V Q P

PstI (802)
PvuII (799) **NcoI (857)** **XcmI (870)** **MseI (882)**
798 CGCAGCTGCAGCAGCTCTACCGCCACATGGAGCTGGAGCAGATGCACGTCTCGATACCCCATGGTGGCCACCCCATCCAGTCTTGGCCACCAGGTCTC

79 P Q L Q Q L Y R H M E L E Q M H V L D T P M V P P H P S L G H Q V S

BsrBI (970)
898 CTACCTGCCCGGATGTGCCTCCAGTACCCATCCCTGTCCCCAGCCAGCCAGCTCAGATGAGGAGGAGGGCGAGCGGCAGAGCCCCCACTGGAGGTG

112 Y L P R M C L Q Y P S L S P A Q P S S D E E E G E R Q S P P L E V

XmaI (1024)
SrfI (1023)
998 TCTGACGGCGAGGCGGATGGCCTGGAGCCCGGGCTGGCTCCTGGCTGGGGAGACAGGCGAGCAAGAAGAAGATCCCGCTGTACCAGTTCCTGTTGGACC

146 S D G E A D G L E P G P G L L P G E T G S K K K I R L Y Q F L L D

1098 TGCTCCGAGCGCGACATGAAGGACAGCATCTGGTGGTGGACAAGGACAAGGGCACCTTCCAGTTCTGTCCAAGCACAAGGAGGCGCTGGCGCACCG

179 L L R S G D M K D S I W W V D K D K G T F Q F S S K H K E A L A H R

FspI (1256)
1198 CTGGGCATCCAGAAGGGCAACCGCAAGAAGATGACCTACCAGAAGATGGCGCGCGCTGCGCAACTACGGCAAGACGGGCGAGGTCAAGAAGGTGAAG

212 W G I Q K G N R K K M T Y Q K M A R A L R N Y G K T G E V K K V K

EcoO109I (1340)
SacII (1335) **BsrBI (1351)** **MseI (1392)**
SfiI (1333) **NheI (1386)**
1298 AAGAAGCTCACCTACCAGTTCAGCGGCAAGTGTGGCCGCGGGGCTGGCCGAGCGGCCACCCGCCCCACTGAGCCCGCAGCCCGCTAGCTGGCC

246 K K L T Y Q F S G E V L G R G G L A E R R H P P H

1398 AGACATGATAAGATACATTGATGAGTTGGACAAACCACAAC TAGAATGCAGTAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTT

HpaI (1524) **MfeI (1535)**
1498 GTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAACATTGCATTCTTTATGTTTCAGGTTTCAGGGGAGGTGTGGAGGTTTTTAAAGCAAGT

EcoRI (1620)
1598 AAAACCTCTACAAATGTGGTATGGAATTTAAATAACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAAT

1698 AAGGCATAGGCATCAGGGGCTGTGCCAATGTGCATTAGCTGTTGCAGCCTCACCTTCTTCATGGAGTTTAAAGATATAGTGTATTTTCCCAAGGTTTG

SapI (1802) **SspI (1859)** **SwaI (1873)**
1798 AACTAGCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTTAGTAAATATTCAGAAATAATTTAAATACATCATTGCAATGAA

EcoO109I (1934)
1898 AATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTTAATAG

1998 AAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTCTCT

141 N R T Y K L P I L E E I T T K V L K G N M E

BstXI (2163)
2098 CAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTA

118 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 D S Y

2198 GGGGTGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAGCACAGACAGTACCCTGCCAATG

85 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 G I

StuI (2298)
2298 TAGGCCTCAATGTGGACAGCAGAGATGATCTCCCCAGTCTTGGTCTGATGGCCGCCCGACATGGTGTCTGTTGTCCTCATAGAGCATGGTGTCTCT

51 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 I K E

2398 CAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGCTTTCATGGTGGCCCTCCTATAGTGAGTCGTATTATACTATGCCGATATACT
 18 T A V E V L E L D Q Q S I N F T K M

2498 ATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTACTAAACGAGCTCTGCTTATATAGACCTCCACCCTACACG

2598 CCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCCATTGACGTCAATGGGG

2698 TGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGA

2798 TGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCAT

2898 ATGATACACTTGATGTACTGCCAAGTGGGCAAGTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATAC

2998 GTCATTATTGACGTCAATGGGGGGGGTCTGTTGGGCGGTGAGCCAGGCGGGCCATTACCGTAAGTTATGTAACGCTGCAGGTTAATTAAGAACATGTG

3098 AGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCTTGTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGC

3198 TCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTTCCCTGGAAAGCTCCCTCGTGCGCTCTCCTGTTCCGACCCCTGCCGTTA

3298 CCGGATACCTGTCCGCTTTCTCCCTTCGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGGTGAGGTCGTTCCGCTCAAGCT

3398 GGGCTGTGTGCACGAACCCCGTTAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTG

3498 GCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGCGGTGTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAG

3598 TATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGTTTTTT

3698 TGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGAACGAAAACTCACGT

3798 TAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCCAATAAAATATCTTTATTTTCATTACATCTGTGTGTTGTTTTTTGTGTGA

3898 ATCGTAACTAACATACGCTCTCCATCAAACAAACGAAACAAACAACTAGCAAATAGGCTGTCCCAGTGAAGTGCAGGTGCCAGAACATTTCTC

3998 TATCGAA