



PvuI (7)
SgfI (6) MfeI (82) EcoNI (96)
1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGCAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
101 GAGAAGGTGGCGCGGGTAAACTGGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203) **HindIII (245)** **Bsu36I (291)**
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGGCCGACAGTGAAGCTTCGAGGGGCTCGCATCTCTCTTACCGCGCCCGCCCTACCTGAGGCC
301 GCCATCCACGCGGTTGAGTGCCTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
NaeI (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTCTCAACTCTACGTCTTTGTTTCGTTT

KasI (535) **AgeI (552)** **SphI (560)**
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTGAGCATGCCCTCAGACCGGCCTTTCAAGCAGCGGGGAGCTT
1 M P S D R P F K Q R R S F
Eco47III (668)
AfeI (668)
601 CGCCGACCCTGTAAGGAGGTACAGCAGATCCGCGACCAGCACCCAGCAAAATCCCGGTGATCATCGAGCGTACAAGGTTGAGAAGCAGCTGCCCGTC
13 A D R C K E V Q Q I R D Q H P S K I P V I I E R Y K G E K Q L P V
BstXI (710) **Tth111I (727)** **KasI (764)** **PstI (772)** **StuI (791)**
701 CTGGACAAGACCAAGTTTTGGTCCCGGACCATGTCAACATGAGCGAGTTGGTCAAGATCATCCGGCGCCGCTGCAGCTGAACCCACGCGAGGCTTCT
47 L D K T K F L V P D H V N M S E L V K I I R R R L Q L N P T Q A F
801 TCCTGCTGGTGAACACAGCAGCATGGTGTGTCCACGCCATCGCGGACATCTACGAGCAGGAGAAAGACGAGGACGGCTTCTCTATATGGTCTA
80 F L L V N Q H S M V S V S T P I A D I Y E Q E K D E D G F L Y M V Y
MscI (948)
NheI (942)
901 CGCCTCCAGAAACCTTCGGCTTCTGAGCCAGCAGTAGGGGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGACAAACCACAACCTAGAA
113 A S Q E T F G F •

HpaI (1080) **MfeI (1091)**
1001 TGCAGTGAATAAATGCTTTATTGTGAAATTTGTGATGCTATTGCTTTATTGTAAACCATTATAAGCTGCAATAAACAAAGTTAAACAACAATTGCAT

EcoRI (1176)
1101 TCATTTTATGTTTCAGGTTACGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATCTAAATACAGCATAGCAA
1201 AACTTAACTCCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGC
1301 AGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGTATTTTCCCAAGGTTTGAAGTCTCTTCATTCTTTATGTTTTAAATGCACTGACCTCCACA

SspI (1415) **SwaI (1429)** **EcoO109I (1490)**
1401 TTCCCTTTTATGATAAATATTAGAAATAATTTAAATACATCATTGCAATGAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTCA
1501 TAATATCCCCAGTTTAGTGTGGACTTAGGGAACAAAGAACCTTTAATAGAAATTGGACAGCAAGAAAGCAGCTTCTAGCTTTAGTTCTGGTGTA
141 • N R T Y
SacI (1690)
1601 CTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTG
136 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 Y D S I L E R
BstXI (1719)
1701 CACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGC
102 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 F D K Q G N S
StuI (1854)
1801 TCACAGCAGACCAATGGCAATGGCTTCCAGCAGACAGTGCCTGCAATGTAGGCTCAATGTGGACAGCAGAGATGATCTCCAGTCTTGGCTCT
69 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 I E G T K T R
XmnI (1996)
1901 GATGGCCGCCCCGACATGGTGTGTTGCTCCTCATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAG
36 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 D Q Q S I N F
BspHI (2004)
BbsI (2000) **AseI (2062)**
2001 GTCTTCATGATGGCCCTCTATAGTGTGATTATACTATGCGGATATACTATGCGGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTT
24 T K M
SacI (2119)
2101 ATCTGACGGTTCATAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCTACCGCCATTTGCGTCAATGGGCGGAGTTGTTACGACATTTTG
2201 GAAAGTCCCGTTGATTTACTAGTCAAAACAAACTCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCAT
SpeI (2217)
2300 TGATGTAAGTCCAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTAAGTCCAAAGTAGGAAAGTCCCATAAAGTTCATGTAAGTGGGCATA

NdeI (2450)

2400 ATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCGATTTACCGTAAATAC

2500 TCCACCCATTGACGTCAATGAAAGTCCCTATTGGCGTACTATGGGAACATACGTCAATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTGAGCCAG

PstI (2629)
SdaI (2628) PacI (2636) **BspLU11I (2646)**

2600 GCGGGCCATTTACCGTAAGTTATGTAACGCCTGCAGGTTAA TTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCGT

2698 TGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCA

2798 GCGGTTTTCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTT

ApaLI (2960)

2898 TCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTGCTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTTCAGCCCGACCGCTGCGCCT

2998 TATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGG

3098 CGGTGCTACAGAGTTCTTGAAGTGGTGGCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAA

3198 AGAGTTGGTAGCTCTTGATCCGGCAAACAACCCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAG

EagI (3396)
PacI (3376) SmaI (3385) **NotI (3395)**

3298 AAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGC

3398 GGCCGCAATAAAATATCTTTATTTTATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAA

3498 ACAAACACTAGCAAATAGGCTGTCCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA