



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

Psp1406I (203) HindIII (245) **Bsu36I (291)**
PvuII (239) EcoNI (287)
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACCGCGCCCGCCGCTACCTGAGGCC
301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCTCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGTTCTTTGTTTCGTTT

KasI (535) **AgeI (552)** BspHI (560)
501 TCTGTTTCTGCGCGGTTACAGATCCAAGCTGTGACCGCGCGCTACCTGAGATCACCGGTCATCATGAAAGTTCTAATCTCTTCCCTCCTCTGTGTGCTGCC
1 M K V L I S S L L L L L P

NcoI (614)
601 ACTAATGCTGATGTCATGGTCTCTAGCAGCCTGAATCCAGGGGTCGCCAGAGCCACAGGGACCAGGCCAGGCTTCTAGGAGATGGCTCCAGGAAGGC
13 L M L M S M V S S S L N P G V A R G H R D R G Q A S R R W L Q E G

Tth111I (756) BspHI (752)
701 GGCCAAGAATGTGAGTGCAAAGATTGGTTCCTGAGAGCCCGAGAAGAAAATTCATGACAGTGTCTGGGCTGCCAAAGAAGCAGTGCCCTGTGATCATT
47 G Q E C E C K D W F L R A P R R K F M T V S G L P K K Q C P C D H
801 TCAAGGGCAATGTGAAGAAAACAAGACACAAAGGCACACAGAAAGCCAAACAAGCATTCCAGAGCCTGCCAGCAATTTCTCAAACAATGTCAGCTAAG
80 F K G N V K K T R H Q R H H R K P N K H S R A C Q Q F L K Q C Q L R

MscI (935) HindIII (900) **NheI (929)**
901 AAGCTTTGCTCTGCCTTTGTAGGAGCTCTGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAAGTGAATGCAGTGAATAA
113 S F A L P L •

HpaI (1067) MfeI (1078)
1001 ATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAACAAATTCATTATTTATGTTT

EcoRI (1163)
1101 CAGGTTACAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTCTAAAATACAGCATAGCAAACTTTAACCTCC
1201 AAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCT

SapI (1345)
1301 TTCATGGAGTTTAAGATATAGTGTATTTTCCCAAGGTTTGAAGTAGCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTATGTT

SspI (1402) **SwaI (1416)** **EcoO109I (1477)**
1401 AAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAG
1501 TTTAGTAGTTGGAAGTGGGAACAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACTTGAGGGGGATG
141 • N R T Y K L P I
1601 AGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGG
131 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 C P

BstXI (1706)
1701 GGCTGACCACCCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCC
98 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 S G

StuI (1841)
1801 AATGGCAATGGCTTCAGCACAGACAGTACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCAGTCTTGGTCTGATGGCCGCCCG
65 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 G

BbsI (1987) **XmnI (1983)**
1901 ACATGGTCTTGTGTCCTCATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGCTTTCATGGTGG
31 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 (2049)
2001 CCCTCTATAGTGTGCTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCA
2101 CTAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTG

SpeI (2204)
2201 ATTTACTAGTCAAAACAACCTCCATTGACGTCAATGGGTGGAGACTTGAAATCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTAAGTGCCTCA

SnaBI (2332)
2301 AACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGACTGCCAAGTAGGAAAGTCCCATAGGTCATGTAAGTGGCATAATGCCAGGCGGGCC

NdeI (2437)
2401 ATTTACCGTCAATGACGTCAATAGGGGGCTACTTGGCATATGATACACTTGTACTGCAAGTGGGCGAGTTTACCGTAAATACTCCACCCATTGACG

2501 TCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGCGGGGGTCTGTTGGCGGGTCAGCCAGGCGGGCCATTTACC

PacI (2623)

PstI (2616)

SdaI (2615)

BspLU11I (2633)

2601 GTAAGTTATGTAACGCCTGCAGGTTAATTAAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGAACCGTAAAAAGGCCGCTTGTGGCGTTTTTCCA

2701 TAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCTGGA

2801 AGCTCCCTCGTGCCTCTCCTGTTCCGACCTGCCGCTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCAGCT

ApaLI (2947)

2901 GTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTTCAGCCCGACCGCTGCGCCTTATCCGGTAACTATCG

3001 TCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGCGGTGCTACAGAGTTC

3101 TTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTT

3201 GATCCGGCAAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTGTGTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTT

EagI (3383)

PacI (3363) SwaI (3372)

NotI (3382)

3301 TTCTACGGGGTCTGACGCTCAGTGGAAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGCCGCAATAAAATAT

3401 CTTTATTTTCATTACATCTGTGTGTTGGTTTTTTTGTGTGAATCGTAACATAACATACGCTCTCCATCAAAAACAAAACGAAAACAAAACAACTAGCAAATA

3501 GGCTGTCCCAAGTGAAGTGCAGGTGCCAGAACATTTCTATCGAA