



PvuI (7)
SgfI (6) **EcoNI (96)**
1 GGATCTCGGATCGCTCCGGTGCCCGTCAGTGGGCAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTCGGCAATTGAACGGGTGCCTA
101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203) **HindIII (245)** **Bsu36I (291)**
PvuII (239) **EcoNI (287)**
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCCTACCTGAGGCC
301 GCCATCCACGCGGTTGAGTTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMI (441) **NaeI (441)**
401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTCTCAACTCTACGTCTTTGTTTCGTTT

NcoI (560)
BstEII (555)
KasI (535) **AgeI (552)**
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCCTACCTGAGATCACCGGTACCATTGGCTCGTTTCTCAACGTACATCATCTTTACCTCTGT
601 CCTCTGTCAGCTAACAGTACAGCAGCTTCTGGAAGTCTGAAGAAGGTGGCCGGTGCCTTGTGGATCTGTGACATTCAGTGAATATCACTGAAATA
13▶ L C Q L T V T A A S G T L K K V A G A L D G S V T F T L N I T E I
701 AAGTTGACTATGTTGTATGGACGTTCAACACATTCTTTCTTCCATGGTAAAGGACGGCGTTACATCACAAAGTAGTAACAAAGAAAGGATAGTCT
47▶ K V D Y V V W T F N T F F L A M V K K D G V T S Q S S N K E R I V
801 TTCCAGATGGACTCTACTCCATGAAGCTCAGCAATTGAAGAAGATGACTCTGGAGCCTACCGTGCAGAGATTTACAGTACATCGAGTCAGGCTTCCTT
80▶ F P D G L Y S M K L S Q L K K N D S G A Y R A E I Y S T S S Q A S L
901 AATCCAGGAGTATGTGCTGCATGTCTACAAGCATTGTCAAGGCCAAGGTCCATAGATCGGCAAAGCAACAAGAATGGCACCTGCCTAATCAATCTG
113▶ I Q E Y V L H V Y K H L S R P K V T I D R Q S N K N G T C V I N L
BspLU11I (1000) **PvuII (1038)** **BspHI (1074)**
1001 ACATGTTCCACGGATCAGGACGGGGAGAATGTAACCTACAGCTGGAAAGCTGTGGGGCAGGGGACAATCAGTTTCATGATGGTGCCACCCTCTCCATCG
147▶ T C S T D Q D G E N V T Y S W K A V G Q G D N Q F H D G A T L S I

MscI (1139)
StuI (1124) **Ppu10I (1134)**
Eco147I (1124) **NsiI (1134)**
1101 CCTGGAGATCAGGAGAGAAAAGCAGGCCCTTAACATGTCATGGCCAGGAATCCAGTCAGCAACAGTTTCTCAACCCCGCTTTTCCCAGAAAGCTCTGTGA
180▶ A W R S G E K D Q A L T C M A R N P V S N S F S T P V F P Q K L C E
1201 AGATGCTGCCACGGATCTAACTCACTCAGGGGCATCCTATACATCCTGTGCTTCTCAGCAGTCTCATCCTATTTGTGTCTTGGTACTATTTTTCAT
213▶ D A A T D L T S L R G I L Y I L C F S A V L I L F A V L L T I F H
1301 ACTAAGTGATAAAGAAAAGAAAAGGATGTGAGGAAGACAAGAAGAGAGTGGACAGGCCAGGAAATGCCCGACTTGTGCCCTCACTTAGAGGAGAACG
247▶ T T W I K K R K G C E E D K K R V D R H Q E M P D L C P H L E E N
1401 CAGACTATGACACAACTCCCTTACACGGAAAAGAAAGCAGAAAGATGCACCAAACACATTTTATTCCACTGTGCAGATCCCCAAAGTGGTAAAGAG
280▶ A D Y D T I P Y T E K R R P E E D A P N T F Y S T V Q I P K V V K S

HindIII (1542) **XbaI (1559)** **NheI (1584)**
1501 TCCCAGCTCCCTGCTGCAAAGCCACTCGTGCCAAAGTTCATTAAGCTTTGAAAATGTTATCTAGATGACAGCACTCCGTCCTCTGCTAGCTGGCCAGACA
313▶ P S S L P A K P L V P R S L S F E N V I •
1601 TGATAAGATACATTGATGAGTTTGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAAC

HpaI (1722)
1701 CATTATAAGCTGCAATAAACAAGTTAAACAACAATTGCATTCTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAAAC

EcoRI (1818)
1801 CTCTACAAATGTGGTATGGAATCTAAAATACAGCATAGCAAACTTTAACTCCAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGC
1901 ATAGGCATCAGGGGCTGTTGCAATGTGCATTAGCTGTTTGCAGCCTCACCTTTTTCATGGAGTTTAAAGATATAGTGTATTTCCCAAGGTTTGAAC

SspI (2057) **SwaI (2071)**
2001 GCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTTAGTAAAATATTCAGAAAATAATTTAAATACATCATTGCAATGAAAATAA

EcoO109I (2132)
2101 ATGTTTTTTATTAGGCAGAAATCCAGATGCTCAAGGCCCTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTTAATAGAAAT
2201 GGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTCTGGTACTTGGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGTTGCCATTCATCTCAATG
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 (2332) **BstXI (2361)**
2301 AGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGT
116▶ 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 H
StuI (2496)
Eco147I (2496)
2401 GCCTGACAGCCAAATGGTGTCAAAGTCTTTGCCCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAGCACAGACAGTACCCTGCCAATGTAGGC
83▶ 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 A

2501 CTCAATGTGGACAGCAGAGATGATCTCCCAGTCTTGGTCTGATGGCCGCCCGACATGGTGTCTTGTCTCATAGAGCATGGTATCTTCTCAGTG
504 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 (2646)
2601 GCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGCTTTCATGATGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCC
164 A V E V L E L D Q Q S I N F T K M
VspI (2704)
AseI (2704) SacI (2761)
2701 GATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTAC
SpeI (2859)
2801 CGCCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCCATTGACGTCAATGGGGTGGAA
SnaBI (2987)
Eco105I (2987)
2900 GACTTGAAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTA
NdeI (3092)
3000 CTGCCAAGTAGGAAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGA
3100 TACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCA
PstI (3271)
SdaI (3270) PacI (3278) BspLU11I (3288)
3200 TTATTGACGTCAATGGGCGGGGGTCTGTTGGGCGGTGAGCCAGGCGGGCCATTTACCGTAAAGTTATGTAACGCTG C A G G T T A A T T A A G A A C A T G T G A G
3298 CAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACA AAAATCGACGCTC
3398 AAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGGCTCTCCTGTTCCGACCCTGCCGCTTACC
3498 GGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGG
ApaLI (3602)
3598 GCTGTGTGCACGAACCCCGTTGAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGC
3698 AGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTA
3798 TTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGATTGGTAGCTCTTGATCCGGCAAACAACACCCTGGTAGCGGTGGTTTTTTTG
3898 TTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAAACGAAAACCTCACGTTA
EagI (4038)
PacI (4018) SmaI (4027) NotI (4037)
3998 AGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCGCAATAAAAATATCTTTATTTTCATTACATCTGTGTGTTGGTTTTTTGTGTGAAT
4098 CGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAAATAGGCTGTCCCCAGTGCAAGTGCAAGTGCCAGAACATTTCTCTA
4198 TCGAA