



PvuI (7)
SgfI (6)
MfeI (82) **EcoNI (96)**

1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAAGTGGCGGGGTAACGGAAAGTGTGCTGTACTGGTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203)
Bsu36I (291)

HindIII (245) **PvuII (239)** **EcoNI (287)**

201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTCACGGCCCGCCGCTACCTGAGGCC
 301 GCCATCCACGCCGGTTGAGTGCCTGCTGCCGCTCCCGCCTGTGGTGCCTCCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMI (441)
NaeI (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGTCTTTGTTTCGTTT

NcoI (560)
BstEII (555)
AgeI (552)

KasI (535)

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGGCTACTCTGAGATCACCGGTCACCATGGTGGTCCCAACATGCCTCACCTCATCTATAT
 601 CCTTTGGCAGTCCACAGGTCAGCAGCCTCTGGACCCGTGAAAGAGCTGGTGGTCCGTTGGTGGGGCCGTGACTTTCCCTGAAAGTCCAAAGTAAAG
 13▶ L W Q L T G S A A S G P V K E L V G S V G G A V T F P L K S K V K
 701 CAAGTTGACTCTATTGTCTGGACCTTCAACACAACCCCTTGTGACCATACAGCCAGAAGGGGGCACTATCATAGTGACCCAAAATCGTAATAGGGAGA
 47▶ Q V D S I V W T F N T T P L V T I Q P E G G T I I V T Q N R N R E
 801 GAGTAGACTTCCAGATGGAGGCTACTCCTGAAGCTCAGCAAATGAAGAAGAATGACTCAGGGATCTACTATGTGGGGATATACAGCTCATCACTCCA
 80▶ R V D F P D G G Y S L K L S K L K K N D S G I Y Y V G I Y S S S L Q

NcoI (962) **PstI (970)**

901 GCAGCCCTCCACCAGGAGTACGTGCTGCATGTCTACGAGCACCTGTCAAAGCCTAAAGTCCACATGGGTCTGCAGAGCAATAAGAATGGCACCTGTGTG
 113▶ Q P S T Q E Y V L H V Y E H L S K P K V T M G L Q S N K N G T C V

EcoO109I (1055)

1001 ACCAATCTGACATGCTGCATGGAACATGGGAAGAGGATGTGATTATACCTGGAAGGCCCTGGGCAAGCAGCAATGAGTCCATAATGGGTCCATCC
 147▶ T N L T C C M E H G E E D V I Y T W K A L G Q A A N E S H N G S I
 1101 TCCCATCTCCTGGAGATGGGGAGAAAGTATGACCTTCATCTGCGTTGCCAGGAACCTGTGAGCAGAACTTCTCAAGCCCATCCTTGCAGGAA
 180▶ L P I S W R W G E S D M T F I C V A R N P V S R N F S S P I L A R K

NcoI (1235)

1201 GCTCTGTGAAGGTGCTGCTGATGACCCAGATTCCTCCATGGTCTCCTGTGCTCCTGTTGGTGGCCCTCCTGCTCAGTCTTTTGTACTGGGGCTATTT
 213▶ L C E G A A D D P D S S M V L L C L L L V P L L L S L F V L G L F

PshAI (1357) **NdeI (1380)**

1301 CTTTGGTTTCTGAAGAGAGAGACAAGAAGAGTACATTGAAGAGAAGAAGAGAGTGGACATTTGTGCGGAACTCCTAACATATGCCCCATTCTGGAG
 247▶ L W F L K R E R Q E E Y I E E K K R V D I C R E T P N I C P H S G
 1401 AGAACACAGAGTACGACACAATCCCTCACACTAATAGAACAATCCTAAAGGAAGTCCAGCAAATACGGTTTACTCCACTGTGGAAATACCGAAAAGAT
 280▶ E N T E Y D T I P H T N R T I L K E D P A N T V Y S T V E I P K K M

MscI (1599)

XbaI (1565) **ApaLI (1576)** **NheI (1593)**

1501 GGAAAATCCCCTACTACTGCTCACGATGCCAGACACACCAAGGCTATTTGCCATGAGAATGTTATCTAGACAGCAGTGCCTCCCTAAGTCCGTAGCT
 313▶ E N P H S L L T M P D T P R L F A Y E N V I •
 1601 GGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAATAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTT

HpaI (1731) **MfeI (1742)**

1701 ATTTGTAACCATTATAAGCTGCAATAAACCAAGTTAAACAACAACATTGCATTCTTTATGTTTCAGGTTTCAGGGGAGGTGGGAGGTTTTTAAAGC

EcoRI (1827)

1801 AAGTAAACCTCTACAAATGTGGTATGGAATTC TAAAATACAGCATAGCAAACTTTAACCTCCAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGAT
 1901 GAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGTATTTTCCAAGG

SspI (2066) **SwaI (2080)**

2001 TTTGAACTAGCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTTAGTAAATATTCAGAAATAATTTAAATACATCATTGCAA

EcoO109I (2141)

2101 TGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGAAACAAGGAACCTTTA

2201 ATAGAAATGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCTTC
 141▶ • N R T Y K L P I L E E I T T K V L K G N

SacI (2341) **BstXI (2370)**

2301 ATCTCAATGAGCACAAGCAGTCAAGGAGCATAGTCAGAGATGAGTCTCTGCACATGCCACAGGGGCTGACCCCTGATGGATCTGTCCACCTCATCAG
 119▶ 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 D S
 2401 AGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAGCACAGACAGTGCCTGCC
 86▶ 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 G

StuI (2505)
Eco147I (2505)

2501 AATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCAGTCTTGGTCTGATGGCCGCCCGACATGGTGTCTGTTGTCTCATAGAGCATGGTGATC
 53▶ 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 I

BspHI (2655)

XmnI (2647)

2601 TTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGTCTTCATGATGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATA
19 K E T A V E V L E L D Q Q S I N F T K M

VspI (2713)
AseI (2713)

2701 TACTATGCCGATGATTAATTGTCAAACACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACATAACGAGCTCTGCTTATATAGACCTCCCACCCTA
SacI (2770)

SpeI (2868)

2801 CACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCCATTGACGTCAA
SnaBI (2996)
Eco105I

2900 TGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATAC
3000 GTAGATGTACTGCCAAGTAGGAAAGTCCATAAGTCTGACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTT

NdeI (3101)

3100 GGCATATGATACCTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGAAAGTCCCTATTGGCGTTACTATGGGAA

PstI (3280)
SdaI (3279) **PaeI (3287)**

3200 CATAAGTCAATTATTGACGTCAATGGGGGGGGTCTGGGGCGGTACGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCCTGCAGGTTAA TTAAGA

BspLU11I (3297)

3298 ACATGTGAGCAAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAA
3398 TCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACCCCTG
3498 CCGCTTACCGGATACCTGTCCGCCTTTCTCCCTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTGCT

ApaLI (3611)

3598 CCAAGCTGGGCTGTGTGCACGAACCCCGTTAGCCCGACCGCTGCGCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATC
3698 GCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGA
3798 AGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAAACAAACCACCGCTGGTAGCGGTG
3898 GTTTTTTTGTGGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAA

EagI (4047)
PaeI (4027) **SwaI (4036)** **NotI (4046)**

3998 CTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCCAATAAAATATCTTTATTTTTCATTACATCTGTGTGTTGTTTTT
4098 TGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGTGCAAGTGCAGGTGCCAGAAC
4198 ATTTCTCTATCGAA