



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

Psp1406I (203) **Bsu36I (291)**
HindIII (245) **EcoNI (287)**
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACCGCGCCCGCCGCTACCTGAGGCC
301 GCCATCCACGCGGTTGAGTGCAGTCTGCCGCTCCCGCCTGTGGTGCCTCCTGAAGTGCCTCCGCGCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

KasI (535) **NcoI (560)**
BstEII (555) **AgeI (552)**
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCCCTACCTGAGATCACCGGTCCACCATGGGACTTCTGTGGTATTTGATGAGTCTGCTCTTCTA
1▶ M G L L W Y L M S L S F Y

BamHI (602) **Eco47III (626)** **NgoMIV (684)**
601 TGGGATCTGCAGAGTATGCTTCGGAGCGCTGTGATGACTGGGGACTAGATACCATGCGACAAATCCAAGTGTGAAAGATGAGCCGGCTCGAATCAAG
13▶ G I L Q S H A S E R C D D W G L D T M R Q I Q V F E D E P A R I K

EcoO109I (791)
701 TGCCCTCTTTGAACACTTCTGAAGTACAACACTACAGCACTGCCATTCCTTGGCCTTACCCTGATCTGGTACTGGACCAGGCAAGCCGGACCGGACTGG
47▶ C P L F E H F L K Y N Y S T A H S S G L T L I W Y W T R Q D R D L
801 AGGAGCCCATTAACCTCCGCTCCAGAGAATCGCATCAGTAAGGAGAAAGATGTGCTCTGGTCCGGCCACCTCCTCAATGACACGGGCAATTACAC
80▶ E E P I N F R L P E N R I S K E K D V L W F R P T L L N D T G N Y T

PvuII (966) **ApaLI (997)**
901 CTGCATGTTGAGGAACACAACTTACTGCAGCAAAGTTGCATTTCCCTGGAAGTTGTTTCAAGAAGGACAGCTGTTTCAATTCTGCCATGAGATCCCAAGT
113▶ C M L R N T T Y C S K V A F P L E V V Q K D S C F N S A M R F P V

XcmI (1078)
1001 CACAAGATGTATATTGAACATGGCATTCCATAAGATCACATGTCCAAATGTAGACGGATACTTTCTTCCAGTGTCAAACCATCGGTCACCTTGGTATAAGG
147▶ H K M Y I E H G I H K I T C P N V D G Y F P S S V K P S V T W Y K
1101 GTTGTACTGAAATAGTGGACTTTTATAATGTACTACCCGAGGGCATGAACCTGAGCTTTTTCATCCCTTGGTTTCAAATAACGGAAATTACACATGTGT
180▶ G C T E I V D F H N V L P E G M N L S F F I P L V S N N G N Y T C V

NsiI (1277) **BglII (1292)**
1201 GGTTACATATCTGAAAACGGAGCTCTCTTTCACCTCACCAGGACTGTGACTGTAAGGTGGTGGGCTCACCAAAGGATGCATTGCCACCCAGATCTAT
213▶ V T Y P E N G R L F H L T R T V T V K V V G S P K D A L P P Q I Y
1301 TCTCAAATGACCGTGTGTCTATGAGAAAAGAACAGGAGAGGAACTGTTTATTCCTGCAAAGTCTATTTTCAGTTTCATTATGGACTCCACAAATGAGG
247▶ S P N D R V V Y E K E P G E E L V I P C K V Y F S F I M D S H N E

SalI (1441) **AseI (1453)**
1401 TCTGGTGGACCATTGATGGAAGAAGCCTGATGACGTCAAGTGCATCACTAATGAAAGTGAAGTTATTTCTTCAACGGAAGATGAAACAAGGAC
280▶ V W W T I D G K K P D D V T V D I T I N E S V S Y S S T E D E T R T
1501 TCAGATTTTGTGATCAAGAAAGTCAACCCGGAGGATCTCAGGCGCAACTATGTCTGTCATGCTCGAAATACCAAAGGGAAGCTGAGCAGGCTGCCAAG
313▶ Q I L S I K K V T P E D L R R N Y V C H A R N T K G E A E Q A A K

XcmI (1658)
1601 GTGAAACAGAAAGTCATACCACCAAGTACACAGTAGAAGTCCGCTGTGGTTTTGGAGCCACGGTCTTTCTGGTAGTGGTTCTCATTGTGGTTTACCATG
347▶ V K Q K V I P P R Y T V E L A C G F G A T V F L V V V L I V V Y H
1701 TTTACTGGCTGGAGATGGTCTCTTTTACCAGCTCCTTTGGAACAGATGAAACAATTCTTGTGAAAGGAGTATGATATTTATGTTTCTATGCAAG
380▶ V Y W L E M V L F Y R A H F G T D E T I L D G K E Y D I Y V S Y A R
1801 AAATGTGGAAGAAGAGGAATTTGTGCTGCTGACGCTGCGTGGAGTTTTGGAGAATGAGTTGGATAACAAGCTGTGCATCTTCGACAGAGACAGCTGCCT
413▶ N V E E E E F V L L T L R G V L E N E F G Y K L C I F D R D S L P
1901 GGGGAAATGTACAGATGAGACCTGAGCTTATTGAGAAAAGCAGACGACTCCTGGTTGTCCTAAGTCCCAACTACGTFDCCAGGGAACACAAGCC
447▶ G G I V T D E T L S F I Q K S R R L L V V L S P N Y V L Q G T Q A

XmaI (2036)
2001 TCCTGGAGCTCAAGGCTGGCCTAGAAAATATGGCTCCCGGGGCAACATCAACGTCATTTTGTGAGTACAAAGCTGTGAAGGACATGAAGGTGAAAGA
480▶ L L E L K A G L E N M A S R G N I N V I L V Q Y K A V K D M K V K E

Bsu36I (2161) **MscI (2192)**
2101 GCTGAAGCGGGCTAAGACGGTGTCTCACGGTCATTAATGAAAGGAGAGAAATCCAAGTATCCTCAGGCGAGTTCTGGAAGCAGTTGCAGGTGGCCATG
513▶ L K R A K T V L T V I K W K G E K S K Y P Q G R F W K Q L Q V A M

NheI (2298)
2201 CCAGTGAAGAAGAGTCCCAGGTGGTCTAGCAATGACAAGCAGGGTCTCTCCTACTCATCCCTGAAAAACGTATGAAAGGAGAAGTGAAGGGGTACAAAGC
547▶ P V K K S P R W S S N D K Q G L S Y S S L K N V •

MscI (2304)
2301 TAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAAGAAAAATGCTTTATTTGTGAAATTTGTGATGCTATT

HpaI (2436) **MfeI (2447)**
2401 GCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAACAATTGCATTCATTTTATGTTTCAGGTTTCAGGGGAGGTGGGAGGTTTTTT

EcoRI (2532)
2501 AAAGCAAGTAAAACCTCTACAAATGTGGTATGGAATTCAAAATACAGCATAGCAAACCTTTAACCTCCAATCAAGCCTCTACTTGAATCCTTTTCTGA
2601 GGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGACGCTCACCTTCTTCATGGAGTTAAGATATAGTGTATTTCC

2701 CAAGGTTTGAAGTCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTATGAAAAATTCAGAAAATAATTTAAATACATCAT
SspI (2771) SwaI (2785)
2801 TGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAAC
EcoO109I (2846)
2901 CTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGC
141 • N R T Y K L P I L E E I T T K V L K G
3001 CATTCACTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTC
BstXI (3075)
121 N 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
3101 ATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAGCAGACAGTGGCC
88 D S 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
3201 CTGCCAATGTAGGCTCAATGTGGACAGCAGAGATGATCTCCCGAGTCTTGGTCTGATGGCCGCCGACATGGTGTCTGTTGTCTCATAGAGCATGG
54 R G 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
3301 TGATCTTCTCAGTGGCGACTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGTCTTCATGATGGCCCTCTATAGTGAGTCGTATTATACTATGC
BspHI (3360)
21 I K E T A V E V L E L D Q Q S I N F T K M
3401 CGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCCA
AseI (3418)
3501 CCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCCATTGACG
SpeI (3573)
3601 TCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTAAGTCCAAAACCGCATCATCATGGTAATAGCGATGACTA
3701 ATACGTAGATGTAAGTCCCAAGTAGGAAAGTCCCATAGGTCATGTAAGTGGCATAATGCCAGGCGGGCCATTTACCGTCAATTGACGTCAATAGGGGGCGT
SnaBI (3701)
3801 ACTTGGCATATGATACACTTGATGTAAGTGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGAAAGTCCCTATTGGCGTACTATG
NdeI (3806)
3901 GGAACATACGTCATTATTGACGTCATGGGGGGTCTGTTGGCGGTGAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGAGGTTAATTAA
PacI (3992)
SdaI (3984)
4001 GAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGTTGCTGGCGTTTTCCATAGGCTCCGCCCTGACGAGCATCACAAA
4101 AATCGACGCTCAAGTCAAGGTTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCTGGAAGCTCCCTCGTGGCTCTCTGTTCCGACCC
4201 TGCCGCTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGTTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCC
4301 CTCCAAGCTGGGCTGTGTGACGAAACCCCGTTACGCCGACCGTGCCTTATCCGGTAACTATCGTCTTGGTCAACCCGTAAGACACGACTTA
ApaLI (4316)
4401 TCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGCGGTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACACTA
4501 GAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAAACAAACCACCGCTGGTAGCGG
4601 TGGTTTTTTTGTGTTGCAAGCAGCAGATTACGCGCAGAAAAAAGATCTCAAGAAGATCTTTGATCTTTTACGGGGTCTGACGCTCAGTGAACGAA
4701 AACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCGAATAAAATATCTTTATTTTTCATTACATCTGTGTGTTGTTT
EagI (4752)
PacI (4732) SwaI (4741) NotI (4751)
4801 TTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAACGAAACAAACAACTAGCAAAATAGGCTGTCCCCAGTGCAGGTGCCAGA
4901 ACATTTCTCTATCGAA