



PvuI (7)
SgfI (6) MfeI (82) EcoNI (96)
 1 GGATCTGCATCGCTCCGGTGCCCGTCAGTGGGCAGAGCGCACATCGCCACAGTCCCGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAAGTGGCGGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203) **HindIII (245)** **Bsu36I (291)**
 EcoNI (287)
 201 GTGAACGTTCTTTTTCGCAACGGGTTTGGCCGAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTACCGCGCCCGCCGCTACCTGAGGCC
 301 GCCATCCACGCGGTTGAGTCGCGTCTGCCGCTCCCGCTGTGGTGCTCTGAACTGCGTCCGCGCTAGGTAAGTTTAAAGCTCAGGTCGAGACC
 401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCGGCTCTCCACGCTTGGCTGACCCTGCTTGTCTAACTCTACGTCTTTGTTTCGTTT

SphI (560)
AgeI (552)
 501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCCTACCTGAGATCACCGGTCAGCATGCTGTGGATCTGGGCTGTCCTGCCTCTGGTGCTTGC
 1▶ M L W I W A V L P L V L A

BspHI (672)
 601 TGGCTCACAGTTAAGAGTTCATACTCAAGTACTAATAGCATCTCCGAGAGTTTAAAGCTGAGGAGCGGGTTTCATGAAACTGATAAAAACTGCTCAGAA
 13▶ G S Q L R V H T Q G T N S I S E S L K L R R R V H E T D K N C S E
 701 GGATTATATCAAGGAGGCCATTTTGTGTCAACCATGCCAACCTGGTAAAAAAAAGTTGAGGACTGCAAAATGAATGGGGGTACACCAACCTGTGCC
 47▶ G L Y Q G G P F C C Q P C Q P G K K K V E D C K M N G G T P T C A

BstAPI (851) **BstAPI (860)** **SapI (874)**
 801 CATGCACAGAAGGGAAGGAGTACATGGACAAGAACCATTATGCTGATAAATGCAGAAGATGCACACTCTGCGATGAAGAGACTGGTTTAGAAGTGAAAC
 80▶ P C T E G K E Y M D K N H Y A D K C R R C T L C D E E H G L E V E T
 901 AAAGTGCACCTGACCCAGAATACCAAGTGAAGTGAACACAGACTTCTACTGCGATTCTCTGGCTGTGAACACTGTGTTGCTGCGCCTCTGTGTGAA
 113▶ N C T L T Q N T K C K C K P D F Y C D S P G C E H C V R C A S C E

PstI (1041)
 1001 CATGGAACCTTGAGCCATGCACAGCAACCAGCAATACAAAAGTCCAGAAACAAAGTCCAGAAATCGCCTATGGTTGTTGACCATCCTGTTTTGTTAA
 147▶ H G T L E P C T A T S N T N C R K Q S P R N R L W L L T I L V L L

XbaI (1171)
 1101 TTCCACTTGATTTATATATCGAAAGTACCGAAAAGAAAAGTGTGAAAAGGAGACAGGATGACCCTGAATCTAGAACCCTCCAGTCGTGAAACCATAACC
 180▶ I P L V F I Y R K Y R K R K C W K R R Q D D P E S R T S S R E T I P

BbsI (1249) **XhoI (1283)**
 1201 AATGAATGCCTCAATCTTACGTTGAGTAAATACATCCCGAGAATTGCTGAAGACATGACAATCCAGGAAGCTAAAAAATTTGCTCGAGAAAATAACATC
 213▶ M N A S N L S L S K Y I P R I A E D M T I Q E A K K F A R E N N I

NsiI (1324) **BstXI (1383)**
Acc65I (1379)
 1301 AAGGAGGGCAAGATAGATGAGATCATGCATGACAGCATCCAAGACACAGCTGAGCAGAAAGTCCAGCTGCTCCTGTGCTGGTACCAATCTCATGGGAAGA
 247▶ K E G K I D E I M H D S I Q D T A E Q K V Q L L L C W Y Q S H G K

NsiI (1403) **EcoO109I (1484)**
BsaBI (1402) **XcmI (1479)**
 1401 GTGATGCATATCAAGATTTAATCAAGGGTCTCAAAAAAGCGAATGTGCGAGAACCCTTAGATAAATTTGAGGACATGGTCCAGAAGGACCTTGAAAAATC
 280▶ S D A Y Q D L I K G L K K A E C R R T L D K F Q D M V Q K D L G K S

MscI (1563)
NheI (1557)
 1501 AACCCAGACACTGAAATGAAATGAAGGACAATGTCTGGAGTGAAGTAACTACCTCAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGAC
 313▶ T P D T G N E N E G Q C L E •

HpaI (1695)
 1601 AAACCACAAC TAGAATGCAGTGAAGAAAAATGCTTTATTTGTGAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACCAAGTTAA

MfeI (1706) **EcoRI (1791)**
 1701 CAACAACAATTGCATTCAATTTATGTTTCAGGTTACAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAAACCTCTACAATGTGGTATGGAATTCTAA
 1801 AATACAGCATAGCAAACTTTAACCTCCAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGT

SapI (1973)
 1901 GCATTAGCTGTTTGCAGCCTCACCTTCTTTTCATGGAGTTAAGATATAGTGTATTTTCCCAAGGTTTGAAGTCTCTTCAATTTCTTTATGTTTTAAATG

SspI (2030) **SwaI (2044)**
 2001 CACTGACCTCCACATTCCTTTTTAGTAAAATATTCAGAAAATATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGAT

EcoO109I (2105)
 2101 GCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGACTTAGGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCT

2201 TTAGTTCCTGGTGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCAATGAGCACAAGCAGTCAGGAGCATAGTCA
 141▶ • N R T Y 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

SacI (2305) **BstXI (2334)**
 2301 GAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCTGTATGGATCTGTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGT
 107▶ 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 R V A V I T D F D

StuI (2469)
 2401 CTTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAGCACAGACAGTACCCTGCAATGTAGGCTCAATGTGGACAGCAGAGATGATCTC
 74▶ K Q G N S 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

2501 CCCAGTCTTGGTCCTGATGGCCGCCCGACATGGTGCTTGTTCCTCATAGAGCATGGTGATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGC
41 G T K T R 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
BbsI (2615)
XmnI (2611) AseI (2677)
2601 TGAGAGATGTTGAAGTCTTCATGGTGGCCCTCCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACACAGCGTGGGA
74 Q S I N F T K M
SacI (2734)
2701 TGGCGTCTCCAGCTTATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGT
SpeI (2832)
2801 TGTTACGACATTTTGAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCG
SnaBI (2960)
2901 CTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTC
NdeI (3065)
3001 ATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAG
3101 TTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGGTCTGTT
PacI (3251)
PstI (3244)
SdaI (3243) BspLU11I (3261)
3201 GGGCGTCCAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAATTAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTA
3301 AAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACT
3401 ATAAAGATACCAGGCGTTTCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCCTTTCTCCCTTCGGGA
ApaLI (3575)
3501 AGCGTGGCGCTTTTCATAGCTCAGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTAGCCCG
3601 ACCGCTGCGCCTTATCCGTAACACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGC
3701 GAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTT
3801 ACCTTCGGAAAAAGATTGGTAGCTCTTGATCCGGCAAACAACCACCGCTGGTAGCGGTGGTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAA
PacI (3991)
3901 AAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAAAGAAAACCTCACGTTAAGGGATTTTGGTCAATGGCTAGTTAATTAAC
EagI (4011)
SwaI (4000) NotI (4010)
4001 ATTTAAATC AGCGGCCGCAATAAAATATCTTTATTTTTCATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACATAACGCTCTCCATCAAACA
4101 AAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGTGCAAGTGCAAGTGCCAGAACATTCTCTATCGAA