



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

Psp1406I (203) **HindIII (245)** Bsu36I (291)
EcoNI (287)
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGGCCGAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACACGGCCCGCCCTACCTGAGGGCC
301 GCCATCCACGCGGTTGAGTGCAGTTCGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

BspHI (560)
KasI (535) **AgeI (552)**
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCTACCTGAGATCACCGGTCATCATGATTTCCAGGGAGTCTGGACAAGTCCGATCATGTG
1 M I S Q G V W T S P I M W

Bsu36I (617) BsrGI (672)
601 GTTTTTCTACAGCATGACCTCAGTGTTTTCTCACGGATGCAAGTGTCCGTTTACCTGCCCTCAGAACCCTCTGTACAGTCAACCAACATGAAGCATCTC
13 F F Y S M T S G F L T D A V S V L P A P Q N L S V Q S T N M K H L

BsrGI (776) **BamHI (794)**
701 TTGATGTGGAACCCAGTACCCAGCCGGGGAGACGGTCTCTATTGTGTGGAGTATCAGGGGAGTACGAGAGCCTGTACATGAGCCACATCTGGATCC
47 L M W N P V T Q P G E T V L Y C V E Y Q G E Y E S L Y M S H I W I

BstAPI (803) BstXI (821)
801 CCAGCAGTCAATGCTCACCGACCAAAAGTCTGGAGTGTGATGTACCGATGACATAACCGCCACAGTGCATATAACTTCAGGGTCAAGGCCATGCTGGG
80 P S S Q C S P T K S L E C D V T D D I T A T V P Y N F R V K A M L G
901 CTCACAGACTTCAGCCTGGAGCAACCTGGAGCACCCCTTAACCGAAATGCAACTGTCCTCACCCACCCAGGATGGAGGTCCTGAACATGGGCTGCAT
113 S Q T S A W S N L E H P F N R N A T V L T P R M E V T E H G L H

SacII (1073)
BbsI (1015) **SandI (1023)** KasI (1069) BspLU11I (1080)
1001 CTGGTTATTGAGCTGGAAGACCTGGGACCCAGTTTGTGTTCTTGTGGTCTACTGGAGGAGGGAGCCTGGCGCGCGGAACATGTTAAGATGGTGAGGA
147 L V I E L E D L G P Q F E F L V V Y W R R E P G A A E H V K M V R

ApaLI (1114) **NcoI (1127)**
1101 GTGGGGACATTCCGGTGCACCTAGAAAACATGGAACCGGGGGCCATGTACTGTGTGAAGGCGCAGGCACTGGTAAAGCCATCGGGAGGCACAGTGCCTT
180 S G D I P V H L E T M E P G A M Y C V K A Q A L V K A I G R H S A F
1201 CAGCCAGCCTACGTGTGTGGAGATGCAAGGAGAGTCTCTCCGCTGGCACTAGCTGTGTTGCGTTTGTGGCTTCATGCTGATTTCTCGTGGTGTACTA
213 S Q P T C V E M Q G E S L P L A L A L F A F V G F M L I L V V V L
1301 CTCTCCGTCTGGAAGATGGGCCAGCTGCTCCGGTATTCTGTGCCCCGCGTTGCTCCTCCAGACACCTGAAAATAACCAAGTTCGTCTCAGAAGCTGA
247 L S V W K M G Q L L R Y S C C P A V V L P D T L K I T S S S Q K L

PstI (1404)
1401 TCAGCTGCAGGAAGGAGGTGGACGCCCTGTGCTGTGGCTGTGCTGTCTCGGAGCATCTCTTTGGGGTCTGGATCTCACAGACTTGAGAAGGACCTGA
280 I S C R K E E V D A C A V A V L S S E H L F G V W I S Q T •

MscI (1520)
NheI (1514)
1501 TGGATTAACAGCCTGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGA

HpaI (1652) MfeI (1663)
1601 AATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAACAAATGCATTATTTATGTTTCAGGTTCAAGGGGAG

EcoRI (1748)
1701 GTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTTAAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCTAC
1801 TTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTAAG

SapI (1930) **SspI (1987)**
1901 ATATAGTGTATTTTCCCAAGTTTGAACCTAGCTCTTCTTTATGTTTTAAATGCACTGACCTCCACATCCCTTTTATGAAAATATTAGAAAAT

SwaI (2001)
2001 AATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACT
2101 TAGGGAACAAAGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTCTCTGGTGTACTTGGGGGATGAGTTCCTCAATGGTG
141 • N R T Y K L P I L E E I T

SacI (2262) BstXI (2291)
2201 GTTTTACCAGCTTGCATTCTCAATGAGCACAAAGCAGTCAAGGAGCATAGTCAGAGATGAGCTCTGTCACATGCCACAGGGGCTGACCACCTGA
126 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 S V V R I
2301 TGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCCGTTGCTCACAGCAGACCAATGGCAATGGCTTC
93 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 I A I A E

StuI (2426)
2401 AGCACAGACAGTGACCCTGCAATGTAGGCTCAATGTGGACAGCAGAGATGATCTCCCACTTGGTCTGATGGCCGCCCGACATGGTCTTGTG
60 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 V H H K N

2501 TCCTCATAGAGCATGGTGATCTTCTCAGTGGGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGCTTTCATGGTGGCCCTCTATAGTGAG
26 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
BbsI (2572) XmnI (2568) SacI (2691)
2601 TCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACTAAACGAGCTCTGC
AseI (2634)
2701 TTATATAGACCTCCACCCTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTACGACATTTTGAAAGTCCCGTTGATTTACTAGTCAAAA
SpeI (2789)
2801 CAAACTCCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTAAGTCCAAAACCGCATCATCATG
SnaBI (2917)
2901 GTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGGGGCCATTACCCTCATTGA
NdeI (3022)
3001 CGTCAATAGGGGGCGTACTTGGCATATGATACACTTGTACTGCCAAGTGGGCGAGTTTACCGTAAATACTCCACCATTGACGTCAATGAAAGTCCC
3101 TATTGGCGTTACTATGGGAACATACGTCAATTATTGACGTCAATGGGGGGGGTCTTGGGCGGTACGCCAGGGGGCCATTACCCTAAGTTATGTAACG
PacI (3208) PstI (3201) SdaI (3200) BspLUIII (3218)
3201 CCGCAGGTTAAATAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCTTGTGGCGTTTTTCCATAGGCTCCGCCCCC
3301 TGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTTCCCCTGGAAGCTCCCTCGTGCGC
3401 TCTCCTGTTCCGACCTGCCGCTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCAGCTGTAGGTATCTCAGTT
ApaLI (3532)
3501 CGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTTCAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCC
3601 GGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCT
3701 AACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAACAAA
3801 CCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGA
EagI (3968) NotI (3967)
3901 CGCTCAGTGGAAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGCAATAAAATATCTTTATTTTCATTAC
PacI (3948) SmaI (3957)
4001 ATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAAACAAAACGAAAACAAAACAACTAGCAAAATAGGCTGTCCCCAGTGC
4101 AAGTGCAGGTGCCAGAACATTTCTATCGAA