



PvuI (7)
SgfI (6) MfeI (82) EcoNI (96)
1 GGATCTGGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203) **HindIII (245)** **Bsu36I (291)**
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACACGCGCCCGCCCTACCTGAGGGCC
301 GCCATCCACGCGGTTGAGTGCAGTTCGCCGCTCCCGCCTGTGGTGCCTCCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

NcoI (560)
BstEII (555)
KasI (535) **AgeI (552)** **PstI (577)**
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTACCATGGGGACACGGGGACTGCAGGGCCTGGGTGGGAGACC
1 M G T R G L Q G L G G R P

BstEII (648)
601 CCAGGGGAGGGGTCCTCTTGCTGGCTGTGGCAGGAGCTACTTCCCTGGTGACCCTGTTGTTGGCAGTGCCTATCACTGTCTGGCTGTGCTGGCCTTG
13 Q G R G C L L L A V A G A T S L V T L L L A V P I T V L A V L A L
701 GTGCCGACAGGATCAGGGACGTCGGGTTGAGAAGATCATTGGCTCAGGAGCACAGGCTCAGAAAAGACTGGATGACAGCAAACCGTCGTGCATCTTGCCT
47 V P Q D Q G R R V E K I I G S G A Q A Q K R L D D S K P S C I L P

PshAI (826) **BspI (894)**
801 CACCCTTAGCCTCTCAGAGACTCCTGACCCCGTCTGCATCCTCAGAGATTCTATGCTTCCAGGAATCTAGCCTCCACATCCAGGGCCCTGTTGCGCA
80 S P S S L S E T P D P R L H P Q R F Y A S R N L A S T S Q G P V A Q

BsaBI (924)
901 GTCCTCTCGGGAGGCATGTCATGGATGACCATCCTGTCTCCAGCTGCGGATTCTACACCAGATCCAGGGGTTCAACAGCTGCCAAAGGGGGAACAGAA
113 S S R E A S A W M T I L S P A A D S T P D P G V Q Q L P K G E P E
1001 ACTGACCTCAACCCTGAGCTCCCTGCTGCCACCTCATAGGCGCTTGGATGAGTGGGCAAGGGCTCAGCTGGGAGGCGAGCAAGAAGAGCGTTTCTGA
147 T D L N P E L P A A H L I G A W M S G Q G L S W E A S Q E E A F L

BssHII (1106)
BsrBI (1101) **XcmI (1121)** **Tth111I (1147)**
1101 GGAGCGGGCGCAGTTTCTCCCCACCCACGGGCTGGCGCTGCCACAGGACGGGCTTATTACCTCTACTGCCACGTGCGGTACAGGGGACGAGCGCCCC
180 R S G A Q F S P T H G L A L P Q D G V Y Y L Y C H V G Y R G R T P P

EagI (1203)
NgoMIV (1201) **FspI (1232)** **KasI (1258)**
1201 TGCCGGCCGAAGCGTGCTCGCTCAGCTGCGCAGCGCCCTGTACCGCGCGGGGGCGCCTACGGGCGAGGTTCCCCGAGTTGCTGCTGGAGGGC
213 A G R S R A R S L T L R S A L Y R A G G A Y G R G S P E L L L E G

BsrBI (1389)
1301 GCGGAGACAGTCACACCTGTTGTGGACCCATCGGGTACGGGTCGTTATGGTACACGAGCGTGGGGTTCGGCGCCTGGCGCAGCTCCGGAGCGGCGAGA
247 A E T V T P V V D P I G Y G S L W Y T S V G F G G L A Q L R S G E

BbsI (1449)
1401 GGGTCTACGTC AACATCAGTCACCCGACATGGTGGACTACAGGAGAGGGAAGACCTTCTCGGGCGGTGATGGTGGGGTGACAGCCATCTGTATTCAT
280 R V Y V N I S H P D M V D Y R R G K T F F G A V M V G •

MscI (1511)
NheI (1505)
1501 TCCTGGCTAGCTGCAGACATGATAAGATACATTGATGAGTTTGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGA

HpaI (1643) MfeI (1654)
1601 TGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAAACAGTTAAACAACAACATTCATTTCATTTATGTTTCAGGTTTCAGGGGAGGTGTGGAG

EcoRI (1739)
1701 GTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATCTAAAATACAGCATAGCAAACCTTAACTCCAATCAAGCCTCTACTGAACTCT
1801 TTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTTAAGATATAGTGT

SspI (1978) **SwaI (1992)**
1901 ATTTTCCCAAGGTTTGAAGTCTCTTCAATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTATAGTAAATATTCAGAATAATTTAAAT
2001 ACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGAACA
2101 AAGGAACCTTAAATAGAAATGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACC
141 • N R T Y K L P I L E E I T T K V

BstXI (2282)
2201 AGCTTGCCATTCTCTCAATGAGCACAAGCAGTCAAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGT
123 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 S R D
2301 CCACCTCATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTCAGCACAGAC
90 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 A C V

StuI (2417)
 2401 AGTGACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCAAGTCTTGGTCCTGATGGCCGCCCGACATGGTGCTTGTGTCCTCATAG
 57 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 D E Y

BspHI (2567)
BbsI (2563)
 2501 AGCATGGTGATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGCTTTCATGATGGCCCTCTATAGTGAGTCGTATTAT
 23 L M T I K E T A V E V L E L D Q Q S I N F T K M

AseI (2625)
 2601 ACTATGCCGATATACTATGCCGATGATTAATTGTCAAACACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCCTAAACGAGCTCTGCTTATATAGA

SpeI (2780)
 2701 CCTCCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCC
 2801 ATTGACGTCAATGGGGTGGAGACTTGGAAATCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCG

SnaBI (2908)
 2901 ATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAG

NdeI (3013)
 3001 GGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCGAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGT

PstI (3192)
SdaI (3191)
PacI (3199)
 3101 TACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTGCTTGGGCGGTGAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCCTGCAGGT

BspLU11I (3209)
 3201 TAAITAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCTTGTGCGGTTTTTCCATAGGCTCCGCCCCCTGACGAGCA
 3301 TCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCTGGAAGCTCCCTCGTGCCTCTCTGTT
 3401 CCGACCCTGCCGTTACCGGATACCTGTCCGCCTTCTCCCTTCGGGAAGCGTGGCGCTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGG

ApaLI (3523)
 3501 TCGTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTGAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACA
 3601 CGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGC
 3701 TACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTG
 3801 GTAGCGGTGGTTTTTTTGTGTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTG

EagI (3959)
NotI (3958)
PacI (3939) **Swal (3948)**
 3901 GAACGAAAACCTCACGTAAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCCAATAAAATATCTTTATTTTCATTACATCTGTGTG

4001 TTGGTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCAAGTGCAGG
 4101 TGCCAGAACATTTCTCTATCGAA