



PvuI (7) SgfI (6) MfeI (82)
1 GGATCTGCGATCGCTCCGGTGCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGAGGGGTCCGCAATTGAACGGGTGCCTA
101 GAGAAGGTGGCGCGGGTAAACTGGAAAAGTATGTCGTGTACTGGCTCCGCCTTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203) PvuII (239) Bsu36I (291)
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCCTTCACGCGCCGCCCTACCTGAGGCC
301 GCCATCCACGCCGGTTGAGTCGCGTTCTGCCGCTCCCGCTGTGGTGCTCCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTCAACTCTACGCTTTTGTTCGTTT

BstEII (555) SmaI (566)
AgeI (552) NcoI (560)
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTCCCATGGGGTCCCGGGCTCAGCCCTGGGCGCTGGGGCT
1 M G V P R P Q P W A L G L
XmaI (684)
601 CCTGCTCTTCTCCTTCTGGGAGCCTGGGCGCAGAAAGCCACCTCTCCCTCTGTACCACCTTACCGGGTGTCTCGCTGCCCGGGGACTCCTGCC
13 L L F L L P G S L G A E S H L S L L Y H L T A V S S P A P G T P A
701 TTCTGGGTGTCCGGCTGGCTGGGCCCGCAGCAGTACCTGAGCTACAATAGCCTGCGGGGCGAGGCGGAGCCCTGTGGAGCTTGGGTCTGGGAAAACAGG
47 F W V S G W L G P Q Y L S Y N S L R G E A E P C G A W V W E N Q
BglII (828)
801 TGTCTGGTATTGGGAGAAAGACACAGATCTGAGGATCAAGGAGAAGCTCTTTCTGGAAGCTTTCAAAGCTTTGGGGGAAAAGTCCCTACACTCT
80 V S W Y W E K E T T D L R I K E K L F L E A F K A L G G K G P Y T L
BstAPI (900) BspHI (980)
901 GCAGGGCCTGCTGGGCTGTGAACTGGGCCCTGACAACCTCGGTGCCACCGCCAAGTTCGCCCTGAACGGCGAGGAGTTTCATGAATTTGACCTCAAG
113 Q G L L G C E L G P D N T S V P T A K F A L N G E E F M N F D L K
1001 CAGGGCACCTGGGGTGGGACTGGCCGAGGCCCTGGCTATCAGTCAGCGGTGGCAGCAGCAGGACAAGGCCGCAACAAGGAGCTCACCTTCTGCTAT
147 Q G T W G G D W P E A L A I S Q R W Q Q Q D K A A N K E L T F L L
BstAPI (1110)
1101 TCTCTGCCCGCACCGCTGCGGGAGCACCTGGAGAGGGGCCGIGGAAACCTGGAGTGAAGGAGCCCCCTCCATGCGCCTGAAGGCCCGACCCAGCAG
180 F S C P H R L R E H L E R G R G N L E W K E P P S M R L K A R P S S
BspEI (1245)
1201 CCCTGGCTTTTCCGTGCTTACCTGCAGCGCTTCTCCTTACCTCCGGAGCTGCAACTTCGGTTCCTGCGGAATGGGCTGGCCGCTGGCACCGGCCAG
213 P G F S V L T C S A F S F Y P P E L Q L R F L R N G L A A G T G Q
BamHI (1324)
1301 GGTGACTTCGGCCCCAACAGTGACGGATCCTTCCACGCCTCGTCTACTAACAGTCAAAGTGGCGATGAGCACCCTACTGCTGCATTGTGCAGCAGC
247 G D F G P N S D G S F H A S S S L T V K S G D E H H Y C C I V Q H
Bsu36I (1416)
1401 CGGGGCTGGCGCAGCCCTCAGGGTGGAGTGAATCTCCAGCCAAGTCTCCGTGCTCGTGGTGGGAATCGTCATCGGTGTCTTGTACTCACGGCAGC
280 A G L A Q P L R V E L E S P A K S S V L V V G I V I G V L L L T A A
BstXI (1546)
1501 GGCTGTAGGAGGAGCTCTGTTGTGGAGAAGGATGAGGAGTGGGCTGCCAGCCCTTGATCTCCCTTCGTGGAGACGACCCGGGCTCCTCTGCCACC
313 A V G G A L L W R R M R S G L P A P W I S L R G D D T G V L L P T
MscI (1690)
NheI (1684)
1601 CCAGGGGAGGCCAGGATGCTGATTTGAAGGATGTAATGTGATTCCAGCCACCCTGACCATCCGCATTCCGACTGCTAAAGCTAGTGGCCAGACA
347 P G E A Q D A D L K D V N V I P A T A •
1701 TGATAAGATACATTGATGAGTTTGGACAAACCACAAGTGAATGCAAGTGAAGGAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAAC

HpaI (1822) MfeI (1833)
1801 CATTATAAGTGAATAAACAAGTTAAACAACAACATTCATTCTTTATGTTTCAGGTTACAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAAC

EcoRI (1918)
1901 CTCTACAAATGTGGTATGGAATTCTAAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGC
2001 ATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTCATGGAGTTTAAAGATAGTGTATTTTCCAAGGTTTGAACTA

SapI (2100) SspI (2157) SmaI (2171)
2101 GCTCTTCAATTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTATGAAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAA
2201 ATGTTTTTTATTAGCAGAATCCAGATGCTCAAGGCCCTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTTAATAGAAATT
2301 GGACAGCAAGAAAGCGAGCTTAGCTTTAGTTCTGGTGTACTTGGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTCTCAATG
141 • N R T Y K L P I L E E I T T K V L K G N M E I

BstXI (2461)

2401 AGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCCTGATGGATCTGTCCACCTCATCAGAGTAGGGT
 116 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 Y P H

StuI (2596)

2501 GCCTGACAGCCACAATGGTGTCAAAGTCCCTTCTGCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTCAGCACAGACAGTACCCTGCCAATGTAGGC
 83 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 I Y A

2601 CTCAATGTGGACAGCAGAGATGATCTCCCCAGTCTTGGTCTGATGGCCGCCCGACATGGTGCTTGTGTCTCATAGAGCATGGTGATCTTCTCAGTG
 50 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 K E T

BbsI (2742)

XmnI (2738)

2701 GCGACCTCCACCAGTCCAGATCTGCTGAGAGATGTTGAAGTCTTCATGGTGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCC
 16 A V E V L E L D Q Q S I N F T K M

AseI (2804)

2801 GATGATTAATTGTCAAACACGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTAC

SpeI (2959)

2901 CGCCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAACAAACTCCCATTGACGTCAATGGGGTGGAG

SnaBI (3087)

3001 ACTTGAAATCCCGTGAGTCAAACGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTAC

NdeI (3192)

3101 TGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGAT

3201 ACACCTTGATGTACTGCCAAGTGGGAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCAT

PacI (3378)

SdaI (3370)

BspLU11I (3388)

3301 TATTGACGTCAATGGGCGGGGTCGTTGGGCGGTGAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACCGCTGCAGGTTAAATAAGAACATGTGAGCAA
 3401 AAGGCCAGCAAAGGCCAGGAACCGTAAAAGCGCGGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAG
 3501 TCAGAGGTGGCGAAACCCGACAGGACTATAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGCCTCTCTGTTCCGACCCTGCCGTTACCGGA
 3601 TACCTGTCCGCTTTCTCCCTTCGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCAAGCTGGGCT

ApaLI (3702)

3701 GTGTGCACGAACCCCGTTTCAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGC
 3801 AGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTT
 3901 GGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGTTTTTTGTTT
 4001 GCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAAACGAAACTCACGTTAAGG

EagI (4138)

PacI (4118) SwaI (4127) NotI (4137)

4101 GATTTTGGTCATGGCTAGTTAATTAACATTTAATCAGCGGCCGAATAAAATATCTTTATTTTATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGT
 4201 AACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAAACTAGCAAATAGGCTGTCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCG
 4301 AA