



PvuI (7)
SgfI (6)
MfeI (82) **EcoNI (96)**

1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203)
HindIII (245) **Bsu36I (291)**

201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACCGCGCCCGCCGCTACCTGAGGCC
 301 GCCATCCACGCGGTTGAGTGCCTGTTGCGCCCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441) **NaeI (441)**

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTACGCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGTCTTTGTTTCGTTT

KasI (535)
AgeI (552) **BspLU11I (560)**

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTCAACATGTACCAGGCTGTTGCATTCTTGGCAATGATCGTGGG
1▶ M Y Q A V A F L A M I V G

BamHI (620)
PvuII (648)

601 AACCCACACCGTCAGCTTGCAGTCCAGGAGGGCTGCAGTCACTTGCCAGCTGCTGCCCCAGCAAAGAGCAAGAACCCCGGAGGAGTGGCTGAAGTGG
13▶ T H T V S L R I Q E G C S H L P S C C P S K E Q E P P E E W L K W

SdaI (755)

701 AGCTCTGCATCTGTGTCCCCCAGAGCCTCTGAGCCACACCCACCACGAGAATCTGCAGGGCCAGCAAGGATGGCCCTCAACAGCAGGGCCATCT
47▶ S S A S V S P P E P L S H T H H A E S C R A S K D G P L N S R A I

SmaI (836)

801 CTCCTTGGAGCTATGAGTTGGACAGGACTTGAATCGGGTCCCGCAGGACCTGTACCACGCTCGATGCCTGTGCCACACTGCCTCAGCCTACAGACAGG
80▶ S P W S Y E L D R D L N R V P Q D L Y H A R C L C P H C V S L Q T G

BbsI (952) **NcoI (972)** **Acc65I (985)**

901 CTCCACATGGACCCGCTGGCAACTCCGTCCTCCACTTTACCACAACGAGCGTCTTCTACCGCGGCCATGCCATGGCGAGGAAGGTACCCATCGCCGC
113▶ S H M D P L G N S V P L Y H N Q T V F Y R R P C H G E E G T H R R

MscI (1097)

1001 TACTGCTTGGAGCGAGGCTCTACCGAGTCTCCTTGGCTTGTGTGTGTGCGGCCCGGGTCAAGTGGCTTAGTCATGCTACCACCTGCCTGCTAGCTGG
147▶ Y C L E R R L Y R V S L A C V C V R P R V M A •

1101 CCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTAT

HpaI (1229) **MfeI (1240)**

1201 TTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAACAATTGCATTTCATTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAA

EcoRI (1325)

1301 GTAAAACCTTACAAATGTGGTATGGAATCTAAAATACAGCATAGCAAACCTTAACTCCAATCAAGCCTCTACTTGAATCCTTTCTGAGGGATGA
▶▶

1401 ATAAGGCATAGGCATCAGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTCTTTCATGGAGTTAAGATATAGTATTTTCCCAAGGTT

SspI (1564) **Swal (1578)**

1501 TGAAGTACTCTTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTTAGTAAAATATTCAGAAATAATTTAAATACATCATTGCAATG
 1601 AAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGAACCTTTAAT

1701 AGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCAT
141▶ • N R T Y K L P I L E E I T T K V L K G N M

BstXI (1868)

1801 CTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGACATGCCACAGGGGCTGACCACCTGATGATCTGTCCACCTCATCAGAG
119▶ 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 D S

1901 TAGGGTGCCTGACAGCCACAATGGTGTCAAAGCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTACGACAGACAGTGACCCTGCCAA
85▶ 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 R G I

StuI (2003)

2001 TGTAGGCTCAATGTGGACAGCAGAGATGATCTCCCGAGTCTGGTCTGATGGCCGCCGACATGGTGTCTTGTCTCATAGAGCATGGTATCTT
52▶ 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 I K

BspHI (2153)
BbsI (2149)

XmnI (2145)

2101 CTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAGGCTTTCATGATGGCCCTCTATAGTGAAGTCTATTATACTATGCCGATATA
19▶ E T A V E V L E L D Q Q S I N F T K M ◀

AseI (2211)

2201 CTATGCCGATGATTAATTGTCAAACACGCTGGATGGCGTCTCCAGCTTATCTGACGGTTACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACA

SpeI (2366)

2301 CGCTACCGCCATTTGCGTCAATGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAACAAACTCCATTGACGTCAATG

SnaBI (2494)

2400 GGGTGGAGACTTGGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGT

2500 AGATGTAAGTCCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGG

NdeI (2599)

2600 CATATGATACACTTGATGTACTGCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACA

2700 TACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTGAGCCAGGCGGGCCATTTACCGTAAAGTTATGTAACGCCTGCAGGTTAA TTAAGAAC
SdaI (2777) PacI (2785) BspLU11I

2798 ATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAATC

2898 GACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGCCTCTCTGTCCGACCTGCC

2998 GCTTACCGGATACCTGTCCGCCTTCTCCCTTCGGGAAGCGTGGCGCTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGGTAGGTCGTTGCTCC

ApaLI (3109)

3098 AAGCTGGGCTGTGTGCACGAACCCCGTTCAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGC

3198 CACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAG

3298 AACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAGAGTTGGTAGCTCTTGATCCGGCAAACAACCCGCTGGTAGCGGTGGT

3398 TTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAAC

EagI (3545)

PacI (3525) SwaI (3534) **NotI (3544)**

3498 CACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGCAATAAAATATCTTTATTTTCATTACATCTGTGTGTTGGTTTTTGG

3598 TGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAAATAGGCTGTCCCAAGTCAAGTGCAGGTGCCAGAACAT

3698 TTCTCTATCGAA