



PvuI (7)
SgfI (6) **MfeI (82)**
1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
101 GAGAAGGTGGCGCGGGTAAACTGGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203) **HindIII (245)**
PvuII (239) **Bsu36I (291)**
201 GTGAACGTTCTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACCGCGCCCGCCGCCCTACCTGAGGGCC
301 GCCATCCACGCGGTTGAGTGCAGTCTGCCGCTCCCGCCTGTGGTGCCTCCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441) **NaeI (441)**
401 GGGCCTTTGTCCGGCGCTCCCTTGAGGCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCAACTCTACGTCTTTGTTTCGTTT

KasI (535) **NcoI (560)**
BamHI (638) **BstEII (555)**
AgeI (552)
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCGCTACCTGAGATCACCGGTCACCATGGAACCAACTTCTCCACTCCTCTGAATGAATATGA
1▶ M E T N F S T P L N E Y E

BspEII (663)
601 AGAAGTGTCTATGAGTCTGCTGGCTACTGTTCTGCGGATCCTCCATTGGTGGTGCCTGGGGTACACCTTTGCTCCTCGGGGTCTGGCAATGGGCTT
13▶ E V S Y E S A G Y T V L R I L P L V V L G V T F V L G V L G N G L

BspEI (719)
701 GTGATCTGGTGGCTGGATTCCGGATGACACGACAGTACCACCATCTGTTACTGAACCTGGCCCTGGCTGACTTTTTTTTACGGCCACATTACCAT
47▶ V I W V A G F R M T R T V T T I C Y L N L A L A D F S F T A T L P

NcoI (818) **DraIII (865)** **BbsI (898)**
801 TCCTCATTGTCTCCATGGCCATGGGAGAAAAATGGCCTTTGGCTGGTTCCTGTGTAAGTAAATTCACATCGTGGTGGACATCAACCTTTTGGAAAGTGT
80▶ F L I V S M A M G E K W P F G W F L C K L I H I V V D I N L F G S V

Bsp120I (956)
901 CTTCTTGATTGGTTTTATTGCACTGGACCCTGCATTTGTGTCCTGCATCCAGTCTGGGCCAGAACCCGCACTGTGAGTCTGGCCATGAAGGTGATC
113▶ F L I G F I A L D R C I C V L H P V W A Q N H R T V S L A M K V I

1001 GTCGGACCTTGATTCTTCTAGTCTTACCTTCCAGTTTTCTCTTTTTGACTACAGTAACTATTCCAAATGGGACACATACTGTACTTTCAACT
147▶ V G P W I L A L V L T L P V F L F L T T V T I P N G D T Y C T F N

Bsu36I (1120)
1101 TTGCATCCTGGGGTGGCACCCCTGAGGAGGCTGAAGGTGGCCATTACCATGCTGACAGCCAGAGGATTATCCGGTTTGTATTGGCTTTAGCTTGC
180▶ F A S W G G T P E E R L K V A I T M L T A R G I I R F V I G F S L P

1201 GATGTCCATTGTTGCCATCTGCTATGGGCTCATTGCAGCAAGATCCACAAAAAGGGCATGATTAAATCCAGCCGTCCTTACGGGTCTCACTGCTGTG
213▶ M S I V A I C Y G L I A A K I H K K G M I K S S R P L R V L T A V

1301 GTGGCTTCTTTTTCATCTGTTGGTTTCCCTTTCAACTGGTTGCCCTTCTGGGACCGTCTGGCTCAAAGAGATGTTGTTCTATGGCAAGTACAAAATCA
247▶ V A S F F I C W F P F Q L V A L L G T V W L K E M L F Y G K Y K I

HpaI (1411) **PvuII (1443)**
1401 TTGACATCCTGGTTAACCCACGAGCTCCCTGGCCTTCTCAACAGCTGCCTCAACCCATGCTTTACGTCCTTGTGGCCAAAGACTTCCGAGAGAGACT
280▶ I D I L V N P T S S L A F F N S C L N P M L Y V F V G Q D F R E R L

Bsp120I (1529) **PstI (1589)**
1501 GATCCACTCCCTGCCACAGTCTGGAGAGGGCCCTGTCTGAGGACTCAGCCCAACTAATGACACGGCTGCCAATTCTGCTTACCTCCTGCAGAGACT
313▶ I H S L P T S L E R A L S E D S A P T N D T A A N S A S P P A E T

NheI (1644)
1601 GAGTTACAGGCAATGTGAGGATGGGGTCAGGGATATTTTGTGTTGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAAACCAACTAG
347▶ E L Q A M •

HpaI (1782) **MfeI (1793)**
1701 AATGCAGTGAATAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAACAATTGC

EcoRI (1878)
1801 ATTCATTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAATGTGGTATGGAATTTCTAAAATACAGCATAGC
1901 AAACTTTAACCTCCAAATCAAGCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTGGCAATGTGCATTAGCTGTTT
2001 GCAGCCTCACCTTCTTTCATGGAGTTTAAAGATATAGTGTATTTTCCCAAGTTTGAAGTACTCTTCTTTTATGTTTTAAATGCACTGACCTCCCA

SspI (2117) **SwaI (2131)**
2101 CATTCCCTTTTGTAGTAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAATAAATGTTTTTTATTAGGCAGAAATCCAGATGCTCAAGGCCCTT
2201 CATAATATCCCCAGTTTAGTAGTTGACTTAGGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTCTGGTG
141▶ • N R T

2301 TACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTC
136▶ 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 S I L E R

2401 TGCACATGCCACAGGGGCTGACCACCCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAAATGGTGTCAAAGTCTTCTGCCCGTT
103▶ 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 K Q G N

StuI (2556)
2501 GCTCAGCAGACCCAATGGCAATGGCTTCCAGCACAGACAGTACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCGAGTCTTGGTC
70▶ 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 G T K T

2601 CTGATGGCCGCCCGACATGGTGCTTGTGTCCTCATAGAGCATGGTGATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGA
36 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 Q S I N F

BspHI (2706)

BbsI (2702)

AseI (2764)

2701 AGGTCTTCATGATGGCCCTCCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACACAGCGTGGATGGCGTCTCCAGC
3 T K M

2801 T TATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCACCCTACACGCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTT

SpeI (2919)

2901 TGGAAAGTCCCGTTGATTTACTAGTCAAAACAAACTCCATTGACGTCAATGGGGTGGAGACTTGGAAATCCCCGTGAGTCAAACCGCTATCCACGCC

SnaBI (3047)

3000 ATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCA

NdeI (3152)

3100 TAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCTACTTGGCATATGATACTTGTACTGCTGCAAGTGGGCGAGTTTACCGTAAAT

3200 ACTCCACCATTGACGTCAATGGAAGTCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGGTCTTGGGCGGTGACGC

PstI (3331)

SdaI (3330)

PacI (3338)

BspLU11I (3348)

3300 AGGCGGGCCATTTACCGTAAGTTATGTAACGCTG CAG GTT AA TTAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAGGCCG

3398 GTTGCTGGCGTTTTTCCATAGGCTCCGCCCTGACGAGCATCACAATAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATAC

3498 CAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGC

ApaLI (3662)

3598 TTTCTCATAGCTCAGCTGTAGGTATCTCAGTTCGGTGTAGGTGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTACGCCGACCGCTGCGC

3698 CTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTA

3798 GCGGTGCTACAGAGTTCTTGAAGTGGTGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAA

3898 AAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCA

PacI (4078) SwaI (4087)

3998 AGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGGAAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC A

EagI (4098)

NotI (4097)

4098 GCGCGCAATAAAATATCTTTATTTTATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACA

4198 AAACAACTAGCAAATAGGCTGTCCCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA