



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

1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203)
Bsu36I (291)

HindIII (245) **EcoNI (287)**

201 GTGAACGTTCTTTTTCGCAACGGGTTTGGCCGAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTACACGGCCCGCCCTACCTGAGGCC
 301 GCCATCCACGCGGTTGAGTCGCGTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)

401 GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

BspHI [m] (560)

KasI (535) **AgeI (552)**

501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCGCTACCTGAGATCACCGGTCATCATGATCATCGTGGCGCATGTATTACTCATCCTTTTGGG
 601 GGCCACTGAGATACTGCAAGCTGACTTACTTCTGATGAAAAGATTTCACTTCTCCACCTGTCAATTCACCATTAAGTTACTGGTTTGGCTCAAGTT
 13▶ A T E I L Q A D L L P D E K I S L L P P V N F T I K V T G L A Q V

XbaI (747)

701 CTTTTACAATGAAACCAATCCTGATCAAGAGCAAAGGAATGTTAATCTAGAATATCAAGTAAAAAAGCTCCAAAAGAAGATGACTATGAAACCA
 47▶ L L Q W K P N P D Q E Q R N V N L E Y Q V K I N A P K E D D Y E T

PstI (865) **MscI (887)**

801 GAATCACTGAAAGCAAATGTGTAACCATCTCCACAAAGGCTTTTTCAGCAAGTGTGCGGACCATCTCGCAGAACGACCACTACTACTGGCCAGCAGCTG
 80▶ R I T E S K C V T I L H K G F S A S V R T I L Q N D H S L L A S S W

BbsI (979)

901 GGCTTCTGCTGAACCTCATGCCCCACCAGGGTCTCTGGAACCTCAGTTGTGAATTTAACTTGACCACAAAACACTACAGAAGACAATTATTCACGTTTA
 113▶ A S A E L H A P P G S P G T S V V N L T C T T N T T E D N Y S R L

Bsu36I (1051)

1001 AGGTCATACCAAGTTTCCCTTCACTGCACCTGGCTTGTGGCACAGATGCCCTGAGGACACGCAGTATTTTCTACTATAGGTATGGCTCTTGGACTG
 147▶ R S Y Q V S L H C T W L V G T D A P E D T Q Y F L Y Y R Y G S W T

SphI (1144)

1101 AAGATGCCAAGAATACAGCAAAGACACTGGGGAGAAATATCGCATGCTGGTTTCCAGGACTTTTATCCTCAGCAAAGGGCGTGACTGGCTTGGCGT
 180▶ E E C Q E Y S K D T L G R N I A C W F P R T F I L S K G R D W L A V

HpaI (1204)
EcoO109I (1234)

1201 GCTTGTTAACGGCTCCAGCAAGCACTCTGCTATCAGGCCCTTTGATCAGCTGTTTGCCTTTCACGCCATTGATCAAATAAATCCTCCACTGAATGTCACA
 213▶ L V N G S S K H S A I R P F D Q L F A L H A I D Q I N P P L N V T
 1301 GCAGAGATTGAAGGAACTCGTCTCTATCCAATGGGAGAAACAGTGTCTGCTTTTCCAATCCATTGCTTTGATTATGAAGTAAAAATACACAATACAA
 247▶ A E I E G T R L S I Q W E K P V S A F P I H C F D Y E V K I H N T

Ppu10I (1436) **NsiI (1436)**

1401 GGAATGGATATTTGCAGATAGAAAAATTGATGACCAATGCATTCATCTCAATAATTGATGATCTTTCTAAGTACGATGTTCAAGTGAGAGCAGCAGTGAG
 280▶ R N G Y L Q I E K L M T N A F I S I I D D L S K Y D V Q V R A A V S
 1501 CTCCATGTGAGAGAGGCGAGGGCTCTGGAGTGTGGAGCCAACCTATTTATGTGGAAATGATGAACACAAGCCCTTGAGAGAGTGGTTTGTCAATTGTG
 313▶ S M C R E A G L W S E W S Q P I Y V G N D E H K P L R E W F V I V
 1601 ATTATGGCAACCTCTGCTTCATCTTGTAAATCTCTCGCTTATCTGTAATAATGTCATTTATGGATCAAGTTGTTTCCACCAATCCAGCACCAAAAA
 347▶ I M A T I C F I L L I L S L I C K I C H L W I K L F P P I P A P K

BglIII (1710)

1701 GTAATATCAAAGATCTCTTTGTAACCACTAACTATGAGAAAGCTGGGTCCAGTGTGACGAAATTGAAGTCATCTGTTATATAGAGAAGCCTGGAGTTGA
 380▶ S N I K D L F V T T N Y E K A G S S E T E I E V I C Y I E K P G V E

NheI (1840)

SphI (1836) **MscI (1846)**

1801 GACCTGGAGGATCTGTGTTTTGACTGTCACTTTGGCATGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATG
 413▶ T L E D S V F •

HpaI (1978) **MfeI (1989)**

1901 CAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAACAATTGCATTC

EcoRI (2074)

2001 ATTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATCTAAAATACAGCATAGCAAAA
 2101 CTTAACCTCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAG
 2201 CCTCACCTCTTTTATGAGTAAAGATATAGTATTTTCCCAAGGTTTGAAGTGTCTTCTTTTATGTTTTAAATGCACTGACCTCCACATT

SspI (2313) **Swal (2327)**
EcoO109I (2388)

2301 CCCTTTTTAGTAAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAAATAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATA
 2401 ATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTAAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACT
 2501 TGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGCA
 135▶ 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 C

BstXI (2617)
 2601 CATGCCACAGGGGCTGACCACCCCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCCTTCTGCCCGTTGCTC
 102 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 S

StuI (2752)
 2701 ACAGCAGACCCCAATGGCAATGGCTTCAGCACAGACAGTGACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCAGTCTTGGTCTGA
 68 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 R I

BbsI (2898)
XmnI (2894)
 2801 TGGCCGCCCCGACATGGTGTCTGTTGTCCTCATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCTGCTGAGAGATGTTGAAGGT
 35 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 T

BspHI (2902) **AseI (2960)**
 2901 CTT**CATGATGGCCCTCCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAA**AAACAGCGTGGATGGCGTCTCCAGCTTAT
 2 K M

3001 CTGACGGTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATTTCGCTCAATGGGGCGGAGTTGTTACGACATTTTGGAA

SpeI (3115)
 3101 AAGTCCCCTTGATT**ACTAGTCA**AAAACAAACTCCCATTGACGTCAATGGGGTGGAGACTTGGAAATCCCCGTGAGTCAAACCGCTATCCACGCCCATTTG

SnaBI (3243)
 3200 ATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCACTGACTGGGCATAAT

NdeI (3348)
 3300 GCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTC
 3400 CACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTCAGCCAGGC

PstI (3527) **SdaI (3526)** **PacI (3534)** **BspLU11I (3544)**
 3500 GGGCCATTTACCGTAAGTTATGTAA**CGCTGCAGGTTAA**TTAAGA**ACATGTGAGCAA**AGGGCCAGCAAAGGGCCAGGAACCGTAAAAAGGCCGCGTTG
 3598 CTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGG
 3698 CGTTTCCCTGGAAGCTCCCTCGTGGCTCTCCTGTTCCGACCTGCCGCTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTC

ApaLI (3858)
 3798 TCATAGCTCAGCTGTAGGTATCTCAGTTCGGTGTAGGTGCTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTACGCCGACCGCTGCGCCTTA
 3898 TCCGTAACATATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCG
 3998 GTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAAG
 4098 AGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTGTGTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAA

EagI (4294)
PacI (4274) **SwaI (4283)** **NotI (4293)**
 4198 GATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGGAAACGAAAACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGG

4298 CCGCAATAAAATATCTTTATTTTATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAACGAAACAAAC
 4398 AAACAGCAAAATAGGCTGTCCCGAGTGAAGTGCAGGTGCCAGAACATTTCTCTATCGAA