



PvuI (7)
SgfI (6)
 1 GGATCTGCATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
 101 GAGAAAGTGGCGCGGGTAAACTGGAAAGTGTGCTGTACTGGCTCCGCTTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245)
Psp1406I (203) **PvuII (239)** **Bsu36I (291)**
 201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTCACGCGCCGCCCTACCTGAGGCC
 301 GCCATCCACGCCGGTTGAGTCGCGTTTCTGCCGCTCCCGCTGTGGTGCTCTGAACTGCGTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
 401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTCCTGACCTGCTTGTCTCAACTCTACGCTTTGTTTCGTTT

BstEII (555) **AgeI (552)** **NcoI (560)** **Bsp120I (587)**
 501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCTACCTGAGATCACCGGTACCATGGTTGCTGGGAGCGACGCGGGGCGGCCCTGGGGGT
 1 M V A G S D A G R A L G V

PvuII (639) **XcmI (651)**
 601 CCTCAGCGTGGTCTGCCTGCTGCACTGCTTTGGTTTTCATCAGCTGTTTTCCCAACAAATATATGGTGTGTGTATGGGAATGTAACCTTCCATGTACCA
 13 L S V V C L L H C F G F I S C F S Q Q I Y G V V Y G N V T F H V P

EcoRI (769)
 701 AGCAATGTGCCTTTAAAAGAGGTCTATGAAAAAACAAAAGGATAAAGTTGCAGAACTGGAAAATCTGAATTCAGAGCTTCTCATCTTTAAAAATA
 47 S N V P L K E V L W K K Q K D K V A E L E N S E F R A F S S F K N

SspI (886)
 801 GGGTTTATTAGACACTGTGTCAGGTAGCCTACTATCTACAACCTAACATCATCAGATGAAGATGAGTATGAAATGGAATCGCCAAATATTACTGATAC
 80 R V Y L D T V S G S L T I Y N L T S S D E D E Y E M E S P N I T D T

NsiI (984)
 901 CATGAAGTCTTTCTTTATGTGCTTGTGCTCTTCCATCTCCACACTAATTGTGCATTGACTAATGGAAGCATTGAAGTCCAATGCATGATACCAGAG
 113 M K F F L Y V L E S L P S P T L T C A L T N G S I E V Q C M I P E

1001 CATTACAACAGCCATCGAGGACTTATAATGTACTCATGGGATTGCTCTATGGAGCAATGTAACGTAACCTCAACCAGTATATATTTAAGATGAAAAATG
 147 H Y N S H R G L I M Y S W D C P M E Q C K R N S T S I Y F K M E N

1101 ATCTTCCAAAAAATACAGTGTACTCTTAGCAATCCATTATTTAATAACAACATCATCAATCATTTTGAACCTGTATCCCAAGCAGCGGTCATTCAAG
 180 D L P Q K I Q C T L S N P L F N T T S S I I L T T C I P S S G H S R

BspLU11I (1243)
 1201 ACACAGATATGCACCTTATACCCATACCATTAGCAGTAATTACAACATGTATTGTGCTGTATATGAATGGTATTCTGAAATGTGACAGAAAACCAGACAGA
 213 H R Y A L I P I P L A V I T T C I V L Y M N G I L K C D R K P D R

MscI (1349)
BstXI (1307) **BbsI (1330)** **NheI (1343)**
 1301 ACCAACTCCAATTGATTGGTAACAGAAGATGAAGACAACAGCAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGA
 247 T N S N •

HpaI (1481)
 1401 ATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAAACAATTGCA

EcoRI (1577)
 1501 TTCATTTTATGTTTCAGTTTCAGGGGAGGTGTGGGAGTTTTTTAAAGCAAGTAAAACCTCTACAAATGTGGTATGGAATTCATAAAATACAGCATAGCA
 1601 AAACTTAACCTCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTG

SapI (1759)
 1701 CAGCCTCACCTTCTTTCATGAGTAAAGATATAGTGTATTTCCCAAGTTTGAACCTAGCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCCAC

SspI (1816) **SwaI (1830)**
 1801 ATTCCCTTTTATGTAATAATTCAGAAATAATTTAAATACATCATTGCAATGAAAAATAATGTTTTTATTAGGCAGAAATCCAGATGCTCAAGGCCCTTC

1901 ATAATATCCCCAGTTTAGTAGTTGACTTAGGGAACAAAGAACCTTAAATAGAAATTTGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGT
 141 N R T Y

SacI (2091)
 2001 ACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCT
 136 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

BstXI (2120)
 2101 GCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCCGTTG
 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 (2255)
 2201 CTCACAGCAGACCAATGGCAATGGCTTCAGCAGACAGTACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCGAGTCTTGGTCC
 69 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 R

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 R

XmnI (2397)

2301 TGATGGCCGCCCCGACATGGTGTCTGTTGTCCTCATAGAGCATGGTGTATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAA
36 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

BbsI (2401)

AseI (2463)

2401 GGTCTTCATGGTGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCT
3 T K M

SacI (2520)

2501 IATCTGACGGTCTACTAAACGAGCTCTGCTTATATAGACCTCCACCCTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTT

SpeI (2618)

2601 GGAAAGTCCCCTGTTGATTTACTAGTCAAAACAAACTCCCATTGACGTCAATGGGGTGGAGACTTGGAAATCCCCGTGAGTCAAACCGCTATCCAGCCCAT

SnaBI (2746)

2701 TGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCCATAGGTCATGTACTGGGCATA

NdeI (2851)

2801 ATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCGTTTACCGTAAATAC

2901 TCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTACTATGGGAACATACGTCAATTATTGACGTCAATGGGCGGGGGTCTTGGGCGGTGAGCCAG

PacI (3037)

PstI (3030)

SdaI (3029)

BspLU11I (3047)

3001 GCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAAITAAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGCCGCGTTG

3101 CTGGCGTTTTTTCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGG

3201 CGTTTCCCCTGGAAGCTCCCTCGTGGCTCTCCTGTTCGACCCCTGCCGTTACCGGATACCTGTCCGCTTCTCCCTTCGGAAGCGTGGCGCTTTC

ApaLI (3361)

3301 TCATAGCTCAGCTGTAGGTATCTCAGTTCGGTGTAGGTGTTGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTCCAGCCCAGCCGCTGCGCCTTA

3401 TCCGGTAACTATCGTCTTGAGTCCAACCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGGC

3501 GTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAG

3601 AGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAA

EagI (3797)

PacI (3777) SmaI (3786) NotI (3796)

3701 GATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGG

3801 CCGCAATAAAATATCTTTATTTTCATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAAC

3901 AAAC TAGCAAATAGGCTGTCCCAAGTGAAGTGCAGGTGCCAGAACATTTCTCTATCGAA