



PvuI (7)
SgfI (6) MfeI (82) EcoNI (96)
1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA
101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTCCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203) HindIII (245) Bsu36I (291)
PvuII (239) EcoNI (287)
201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGGCTCGCATCTCTCTTACAGCGCCCGCCGCCCTACCTGAGGCC
301 GCCATCCACGCGGTTGAGTGCAGTTCGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCGCTACCTAGACTCAGCGGCTCTCCACGCTTTGCTGACCCTGCTTGTCTAACTCTACGCTTTTGTTCGTTT

KasI (535) **BspEI (558)** **SphI (566)**
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCTACCTGAGATCACCGGCTCCGGACAGCATGCCCTGCTGACACTCTACCTGCTCCTCTT
1 M P L L T L Y L L L F

AgeI (634) **BsrBI (661)**
601 CTGGCTCTCAGGCTACTCCATTGCCTCAATACCCGGTCCAACAACAGTGAATGGCTTGGAGCGGGGCTCCTTGACCGTGCAGTGTGTTTACAGATCA
11 W L S G Y S I A T Q I T G P T T V N G L E R G S L T V Q C V Y R S
701 GGCTGGGAGACCTACTTGAAGTGGTGGTGTGCGAGGAGCTATTTGGCGTACTGCAAGATCCTTGTAAAACAGTGGGTCAGAGCAGGAGGTGAAGAGGG
45 G W E T Y L K W W C R G A I W R D C K I L V K T S G S E Q E V K R

NcoI (848) **BspHI (860)**
801 ACCGGGTGTCCATCAAGGACAATCAGAAAAACCGCACGTTCACTGTGACCATGGAGGATCTCATGAAAACCTGATGCTGACACTTACTGGTGTGGAATTGA
78 D R V S I K D N Q K N R T F T V T M E D L M K T D A D T Y W C G I E
901 GAAAACCTGGAATGACCTTGGGGTACAGTTCAAGTGACCATTGACCCAGCACCAGTCAACCAAGAAGAACTAGCAGTCCCAACTCTGACCGGCCAC
111 K T G N D L G V T V Q V T I D P A P V T Q E E T S S S P T L T G H
1001 CACTTGGACAACAGGCACAAGCTCCTGAAGCTCAGTGTCTCTGCCCCTCATCTTACCATATTGCTGCTGCTTTTGGTGGCCGCTCACTCTTGGCTT
145 H L D N R H K L L K L S V L L P L I F T I L L L L L V A A S L L A

BstAPI (1146) PvuII (1198)
1101 GGAGGATGATGAAGTACCAGCAGAAAGCAGCCGGATGTCCCCAGAGCAGGACTGCAGCCCCTGGAGGGCGACCTCTGCTATGCAGACTGACCCTGCA
178 W R M M K Y Q Q K A A G M S P E Q V L Q P L E G D L C Y A D L T L Q

HindIII (1234) **NcoI (1280)**
1201 GCTGGCCGGAACCTCCCCGAAAAGGCTACCACGAAAGCTTCTCTGCCAGGTTGACCAGGTGGAAGTGAATATGTACCATGGCTTCTCTTCCCGAAG
211 L A G T S P Q K A T T K L S S A Q V D Q V E V E Y V T M A S L P K

NsiI (1313) **Bsp120I (1395)** Bsu36I (1399)
1301 GAGGACATTTCTATGCATCTCTGACCTTGGGTGCTGAGGATCAGGAACCGACCTACTGCAACATGGGCCACCTCAGTAGCCACCTCCCCGGCAGGGGCC
245 E D I S Y A S L T L G A E D Q E P T Y C N M G H L S S H L P G R G

StuI (1432) **NheI (1440)** **MscI (1446)**
1401 CTGAGGAGCCACGGAATACAGCACCATCAGCAGGCTTAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATG
278 P E E P T E Y S T I S R P •

HpaI (1578) MfeI (1589)
1501 CAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAAACAGTTAAACAACAACAATTGCATTC

EcoRI (1674)
1601 ATTTTATGTTTCAGGTTTCAGGGGAGGTGTGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTCTAAAATACAGCATAGCAAAA
1701 CTTAACCTCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAG

SapI (1856)
1801 CCTCACCTCTTTTTCATGGAGTTTAAAGATATAGTGATTTTCCCAAGGTTTGAAGTACTCTTTCATTTCTTTATGTTTTAAATGCAGTACCTCCACATT

SspI (1913) **SwaI (1927)**
1901 CCCTTTTGTAGTAAATATTGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTATA
2001 ATATCCCCAGTTTGTAGTGTGGACTTAGGGAACAAAGGAACCTTAAATAGAAATGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCCTGGTGTACT
141 • N R T Y K

BstXI (2217) **SacI (2188)**
2101 TGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCA
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

StuI (2352)
2201 CATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTC
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

BbsI (2498) **XmnI (2494)**
2301 ACAGCAGACCCAATGGCAATGGCTTCCAGCAGACAGTACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCAAGTCTTGGTCTGA
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

2401 TGGCCGCCCCGACATGGTGTGTTGTCTCATAGAGCATGGTGTCTCTCAGTGGCGACCTCCACCAGCTCCAGATCTGCTGAGAGATGTTGAAGGT
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 (2502) AseI (2560)
 2501 CTT**CATGATGGCCCTCCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAA**AAACAGCGTGGATGGCGTCTCCAGC**T TAT**
 2 K M

SacI (2617)
 2601 CTGACGGTTC**ACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCATT**TGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAA

SpeI (2715)
 2701 AAGTCCCGTTGATTT**ACTAGTCAAACAAACTCCATTGACGTCAATGGGGTGGAGACTTGGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTG**

SnaBI (2843)
 2800 ATGTA**CTGCCAAAACCGCATCATCATG**GTAATAGCGGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGT**CTACTGGGCATAAT**

NdeI (2948)
 2900 GCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTT**GATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTC**
 3000 CACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTACTATGGGAACATACGT**CATTATTGACGTCAATGGCGGGGGTCGTTGGCGGTCAGCCAGGC**

SdaI (3126) PacI (3134) BspLU11I (3144)
 3100 GGGCCATTTACCGTAAGTTATGTAACGCC**TGCAGGTTAA**TTAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGCCGCGTTG
 3198 CTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGG
 3298 CGTTTCCCCTGGAAGCTCCCTCGTGCGCTCTCTGTTCCGACCTGCCGCTTACCGGATACCTGTCCGCTTCTCCCTTCGGGAAGCGTGCGCTTTC

ApaLI (3458)
 3398 TCATAGCTCAGCTGTAGGTATCTCAGTTCGGTGTAGGTGCTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTT**CAGCCCGACCCTGCGCCTTA**
 3498 TCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCG
 3598 GTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAG
 3698 AGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACCGCGAGAAAAAAGGATCTCAAGAA

EagI (3894) PacI (3874) SmaI (3883) NotI (3893)
 3798 GATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAAACGAA**AACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGG**

3898 CCGCAATAAAAATATCTTTATTTT**CATTACATCTGTGTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAAC**
 3998 AA**ACTAGCAAAAATAGGCTGTCCCAAGTCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA**