



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

101 GAGAAAGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGCAGTAGTCGCC

HindIII (245)
Psp1406I (203) 201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTACACGCCGCCGCCCTACCTGAGGCC **PvuII (239)** **Bsu36I (291)**

301 GCCATCCACGCCGGTTGAGTCGCGTTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
NaeI (441) 401 GGGCCTTTGTCCGGCGCTCCCTTGAGGCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTCTCAACTCTACGCTTTTGTTCGTTT

NcoI (560)
BstEII (555) 501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCCTACCTGAGATCACCGGTACCCATGGACACCAACATGTCTCTCCTCATGAACAAGTCTGC **AgeI (552)** **BspLU11I (572)** **PstI (596)**
1 M D T N M S L L M N K S A

ScaI (625) 601 AGTGAACCTCATGAATGTATCTGGGAGTACTCAATCAGTATCTGCTGGCTACATCGTTTCTGGATGCTTCTCATATTTGATCTTTGCCGTCACATTTGTC
13 V N L M N V S G S T Q S V S A G Y I V L D V F S Y L I F A V T F V
701 CTTGGGGTTCGGCAACGGGCTCGTATCTGGGTGGCTGGTTCCGCATGAAACACACTGTCCACCACATCTTACTTGAAGTGGCCATTGCTGACT
47 L G V L G N G L V I W V A G F R M K H T V T T I S Y L N L A I A D

XcmI (833) 801 TTTGCTTCACTTCCACTTTGCCATTTTACATTGCCAGCATGGTCATGGGAGGACATTGGCCATTTGGTTGGTTCATGTCAAATTCATATATACTGTAAT
80 F C F T S T L P F Y I A S M V M G G H W P F G W F M C K F I Y T V I
901 AGACATAAACCTATTTGGAAGTGTCTTCTGATTGCCCTATTGCACTGGACCGCTGTATTTGTTCTGCATCCAGTCTGGGCTCAGAACACCCGCACT
113 D I N L F G S V F L I A L I A L D R C I C V L H P V W A Q N H R T

PshAI (1077) 1001 GTGAGCCTAGCCAAGAAGTAAATCATCGTACCCTGGATTGTGCATTTCTTCTTACATTGCCAGTTATCATTGTTGACCACAGTCCCTAATAGTAGAC
147 V S L A K K V I I V P W I C A F L L T L P V I I R L T T V P N S R
1101 TTGGACCGGAAAAACAGCTGTACTTTGACTTCTCCCTGGACCAAAGATCCTGTAGAGAAGAGGAGGTTGGCCGTCACCATGCTCACTGTCCAGAGG
180 L G P G K T A C T F D F S P W T K D P V E K R K V A V T M L T V R G
1201 AATCATCAGGTTTCATTTGGGTTCCAGCACTCCCATGTCCATTGTTGCCATTTGCTATGGGTTAATAACCACTAAAATTCACAGGCAGGCGCTGATCAA
213 I I R F I I G F S T P M S I V A I C Y G L I T T K I H R Q G L I K
1301 TCCAGCCGTCCTTTGGGGTTCCTCTCTTTGTTGGTGCCTTTTTCTCTGCTGGTGCCTTTTCAAGTAGTGGCCCTCATATCCACAATCCAAGTCC
247 S S R P L R V L S F V V A A F F L C W C P F Q V V A L I S T I Q V

PvuII (1473) 1401 GTGAACGGTTGAAGAATGACTCCAGGCAATTGAACTGCTTTGAAAATCACAAGCCCTTGGCTTTCTTCAACAGCTGCCTCAATCCAATGCTTTATGT
280 R E R L K N M T P G I V T A L K I T S P L A F F N S C L N P M L Y V

Bsp120I (1559) 1501 CTTTATGGCCAGGACTTCAGAGAAAGACTAATCCACTTTTACCTGCGAGCCTAGAGAGGGCCCTGACTGAGGACTCAGCTCAGACCAGTGATACAGGC
313 F M G Q D F R E R L I H S L P A S L E R A L T E D S A Q T S D T G

NheI (1677) 1601 ACCAATTTGGGGACCACTCTACTTCCCTTTCTGAAAACACTTTAAATGCAATGTAAGAAGGGCTCTAACTCCAGCTAGCTGGCCAGACATGATAAG
347 T N L G T N S T S L S E N T L N A M •

1701 ATACATTGATGAGTTTGGACAAACCACAAGTGAATGCAGTGAATAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATA

HpaI (1815) **MfeI (1826)** 1801 AGCTGCAATAAACAAAGTTAAACAACAATTGCATTTTATGTTTCAGGTTGAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACA

EcoRI (1911) 1901 AATGTGGTATGGAATCTAAAATACAGCATAGCAAACCTTAACTCCAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCA

2001 TCAGGGGCTGTTGCCAATGTGCATTAGCTGTTGCAGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGATTTTCCCAAGGTTTGAAGTACTGCTCTTC

SspI (2150) **SwaI (2164)** 2101 ATTTCTTTATGTTTTAAATGCACTGACCTCCCACATTCCTTTTTAGTAAAATATTGAGAAAATATTTAAATACATCATTGCAATGAAAATAAATGTTTT

2201 TTATTAGGCAGAATCCAGATGCTCAAGGCCCTTATAATATCCCCAGTTTAGTAGTTGACTTAGGGAACAAAGAACCTTTAATAGAAATTGGACAGC

2301 AAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCATTTCATCTCAATGAGCACAA
141 • N R T Y K L P I L E E I T T K V L K G N M E I L V F

SacI (2425) 2401 AGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGAC
114 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 Y P H R V

StuI (2589) 2501 AGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTCCAGCACAGACAGTGCCTGCAATGTAGGCTCAATG
81 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 Y A E I

2601 TGGACAGCAGAGATGATCTCCCACTTGGTCTGATGGCCGCCGACATGGTCTTGTGCTCCTCATAGAGCATGGTATCTTCTCAGTGGCGACCT
47 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 E T A V E

2701 **XmnI (2731)** **AseI (2797)**
 14 CCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTCTTCATGATGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATT
 14 V L E L D Q Q S I N F T K M

2801 **SacI (2854)**
 AATTGTCAAACACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTCACTAAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCCTACCGCCAT

2901 **SpeI (2952)**
 TTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAAACAACTCCATTGACGTCAATGGGTGGAGACTTGG

3000 **SnaBI (3080)**
 AAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTA CTGCCAA

3100 **NdeI (3185)**
 GTAGGAAAGTCCATAAGGTCATGTACTGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCTACTGGCATATGATACACTT

3200
 GATGTACTGCCAAGTGGGCGTTTACCGTAAATACTCCACCCATTGACGTCAATGAAAGTCCCTATTGGCGTACTATGGGAACATACGTCATTATTGA

3300 **PstI (3364)** **SdaI (3363)** **PacI (3371)** **BspLU11I (3381)**
 CGTCAATGGGCGGGGCTGTTGGGCGGTGAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAA TTAAGAACATGTGAGCAAAAGG

3398
 CCAGCAAAAGGCCAGGAACCGTAAAAAGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAG

3498
 AGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTTCCCTGGAAGCTCCCTCGTGCCTCTCTGTTCGACCCCTGCCGCTTACCGGATACC

3598 **ApaLI (3695)**
 TGTCCGCTTTCTCCCTTCGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTGCTTCGCTCCAAGCTGGGCTGTGT

3698
 GCACGAACCCCCGTTACGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCC

3798
 ACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTA

3898
 TCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGTGGTAGCGGTGTTTTTTTTGTTTGGCA

3998
 GCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATT

4098 **EagI (4131)** **PacI (4111)** **SwaI (4120)** **NotI (4130)**
 TTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGCAATAAAATATCTTTATTTTCATTACATCTGTGTGTTGTTTTTTGTGTGAATCGTAACT

4198
 AACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA