



PvuI (7)
SgfI (6) 1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGCAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA **MfeI (82)**
101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

Psp1406I (203) 201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCCTTACGCGCCCGCCGCTACCTGAGGCC **HindIII (245)** **Bsu36I (291)**
301 GCCATCCAGCGCGGTTGAGTCGCGTTTCTGCCGCTCCCGCTGTGGTGCCTCCTGAAGTGCCTCCGCGCTAGGTAAGTTAAAGCTCAGGTCGAGACC

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCTGCTTGTCAACTCTACGCTTTTGTTCGTTT **NgoMIV (441)**

501 TCTGTTTGTGCGCGGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTAGCATGCACAGCTCAGCACTGCTCTGTTGCCTGGTCTCCTG **KasI (535)** **AgeI (552)** **SphI (559)**
1 M H S S A L L C C L V L L

601 ACTGGGGTGAAGGCCAGCCAGGCCAGGCCACCCAGTCTGAGAACAGCTGCACCCACTTCCCAGGCAACCTGCCTAACATGCTTCGAGATCTCCGAGATG **BglII (686)**
14 T G V R A S P G Q G T Q S E N S C T H F P G N L P N M L R D L R D

701 CCTTCAGCAGAGTGAAGACTTTCTTCAAATGAAGGATCAGCTGGACAACCTGTTGTTAAAGGAGTCTTGTGAGGACTTTAAGGGTTACCTGGGTTG **XmnI (713)** **BstEII (786)**
47 A F S R V K T F F Q M K D Q L D N L L L K E S L L E D F K G Y L G C
80 CCAAGCCTGTCTGAGATGATCCAGTTTACCTGGAGGAGGTGATGCCCAAGCTGAGAACCAAGACCCAGACATCAAGGCGCATGTAAGTCCCTGGGG
80 Q A L S E M I Q F Y L E E V M P Q A E N Q D P D I K A H V N S L G

901 GAGAACCTGAAGACCTCAGGCTAGGCTACGGCGCTGTATGATTTCTTCCCTGTGAAAACAAGAGCAAGGCCGTGGAGCAGGTGAAGAATGCCTTTA **Bsu36I (914)** **ClaI (940)**
114 E N L K T L R L R L R R C H R F L P C E N K S K A V E Q V K N A F
1001 ATAAGCTCCAAGAGAAAGGCATCTACAAAGCCATGAGTGTGATTTGACATCTTCACTACATAGAAGCCTACATGACAATGAAGATACGAAACTGAGA
147 N K L Q E K G I Y K A M S E F D I F I N Y I E A Y M T M K I R N •

1101 CATCAGGGTGGCGACTCTATAGACTCGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAAAAAATG **MscI (1132)** **NheI (1126)**

1201 CTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAATTCATTCTTTATGTTTCAG **HpaI (1264)** **MfeI (1275)**

1301 GTTCAGGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTCTAAAATACAGCATAGCAAACTTTAACCTCCTAAA **EcoRI (1360)**
1401 TCAAGCCTCTACTTGAATCCTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTCTTTC

1501 ATGGAGTTAAGATATAGTGATTTTCCCAAGTTTGAAGTACTCTTCAATTTCTTTATGTTTAAATGCACTGACCTCCACATTCCCTTTTATGATAA **SspI (1599)**

1601 ATATTCAGAAATAATTTAAATACATCATTGCAATGAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTT **Swal (1613)** **EcoO109I (1674)**
1701 AGTAGTTGGACTTAGGGAACAAAGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTGTACTTGAGGGGGATGAGT
141 • N R T Y K L P I L

1801 TCCTCAATGGTGGTTTTGACCAGCTTCCATTCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTGACATGCCACAGGGGC **SacI (1874)**
130 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 M G C P S

1901 TGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCCAAT **BstXI (1903)**
97 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 V A S G I

2001 GGCAATGGCTTCAGCACAGACAGTGACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCCAGTCTTGGTCTGATGGCCGCCCGGACA **StuI (2038)**
64 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 A A G V

2101 TGGTGCTTGTGCTCATAGAGCATGGTATCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGTCTTCATGATGGCCC **XmnI (2180)**
30 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 K M

2201 TCCTATAGTGAGTCGATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGGCGTCTCCAGCTATCTGACGGTTCACTA **AseI (2246)**

2301 AACGAGCTCTGCTTATATAGACCTCCACCGTACACGCTACCGCCATTTGCGTCAATGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATT **SacI (2303)**

2401 TACTAGTCAAAACAAACTCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTAAGTCCAAAAC **SpeI (2401)**

2501 CGCATCATCATGGAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTAAGTGGGCATAATGCCAGGCGGGCCATT

SnaBI (2529)

2601 TACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCA

NdeI (2634)

2701 ATGGAAAGTCCCTATTGGCGTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTGACCCAGGCGGGCCATTTACCGTA

PacI (2820)

PstI (2813)

SdaI (2812)

BspLU11I (2830)

2801 AGTTATGTAACGCCTGCAGGTTAATTAAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAG

2901 GCTCCGCCCCCTGACGAGCATCAGAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGC

3001 TCCCTCGTGCCTCTCCTGTTCCGACCTGCCGCTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTA

ApaLI (3144)

3101 GGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTCCAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCT

3201 TGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGCGGTGCTACAGAGTTCTTG

3301 AAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTTTGAT

3401 CCGGCAAACAAACCACCGCTGGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTC

EagI (3580)

PacI (3560) SwaI (3569) NotI (3579)

3501 TACGGGTCTGACGCTCAGTGAACGAAAACACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATC AGCGGCCGAATAAAATATCTT

3601 TATTTTCATTACATCTGTGTGTTGGTTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAATAGGC

3701 TGTCCCCAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA