



PvuI (7)
SgfI (6) 1 GGATCTGGATCGCTCCGGTGCCCGTCAGTGGGCAGAGCGCACATCGCCACAGTCCCGGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA **MfeI (82)**
101 GAGAAAGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCGTATATAAGTGCAGTAGTCGCC

Psp1406I (203) 201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTTCACGCGCCCGCCCTACCTGAGGCC **HindIII (245)** **Bsu36I (291)**
301 GCCATCCACGCGGGTTGAGTCGCGTTTCTGCCGCCTCCCGCTGTGGTGCCTCCTGAAGTGCCTCCGCCGTCTAGGTAAGTTTAAAGTCAAGTTCGAGACC

401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTCTCAACTCTACGTCTTTGTTTCGTTT **NgoMIV (441)**

501 TCTGTTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCGCTACCTGAGATCACCGGTCAACATGTGTACCAGCAGTTGGTCATCTCTGGTTTTCCCT **KasI (535)** **AgeI (552)** **BspLU11I (560)**
1 M C H Q Q L V I S W F S L **BspEI (675)**

601 GGTTTTCTGGCATCTCCCTCGTGGCCATATGGGAACCTAAGAAAGATGTTTATGTCGTAGAAATTGGATTGGTATCCGGATGCCCTGGAGAAATGGTG **NdeI (627)** **BsaBI (667)**
13 V F L A S P L V A I W E L K K D V Y V V E L D W Y P D A P G E M V
701 GTCCTCACCTGTGACACCCCTGAAGAAGATGGTATCACCTGGACCTTGGACCAGAGCAGTGAGGTCTTAGGCTCTGGCAAACCTGACCATCCAAGTCA **BspEI (675)**
47 V L T C D T P E E D G I T W T L D Q S S E V L G S G K T L T I Q V
801 AAGAGTTTGGAGATGCTGGCCAGTACACCTGTCAAAAGGAGGCGAGTTCTAAGCCATTGCTCCTGCTGCTTCAAAAAAGGAAGATGGAATTTGGTC **BspEI (675)**
80 K E F G D A G Q Y T C H K G G V L S H S L L L L H K K E D G I W S
901 CACTGATATTTTAAAGACCAGAAAGAACCCAAAAATAAGACCTTTCTAAGATGCGAGGCCAAGAATTATTCTGGACGTTTCACTGTGCTGGTGCAGC **BspEI (675)**
113 T D I L K D Q K E P K N K T F L R C E A K N Y S G R F T C W W L T

1001 ACAATCAGTACTGATTTGACATTCAGTGTCAAAGCAGCAGAGGCTCTTCTGACCCCAAGGGTGACGTGCGGAGCTGTACACTCTCTGCAGAGAGAG **SapI (1043)**
147 T I S T D L T F S V K S S R G S S D P Q G V T C G A A T L S A E R
1101 TCAGAGGGGACAACAAGGAGTATGAGTACTCAGTGGAGTGCCAGGAGGACAGTGCCTGCCAGCTGCTGAGGAGAGTCTGCCATTGAGGTATGGTGA **BspEI (675)**
180 V R G D N K E Y E Y S V E C Q E D S A C P A A E E S L P I E V M V D
1201 TGCCGTTCAAGCTCAAGTATGAAAACACACAGCAGCTTCTTATCAGGGACATCATCAAACCTGACCCACCAAGAAGTTCAGCTGAAGCCATTA **BspEI (675)**
213 A V H K L K Y E N Y T S S F F I R D I I K P D P P K N L Q L K P L

1301 AAGAATTCGCGCAGGTGGAGGTGAGTACCCTGACACCTGGAGTACTCCACATTCCTACTTCTCCCTGACATTCTGCGTTCCAGTCCAGGGCA **EcoRI (1302)**
247 K N S R Q V E V S W E Y P D T W S T P H S Y F S L T F C V Q V Q G

1401 AGAGCAAGAGAGAAAAGAAAGATAGAGTCTTCCGGACAGACCTCAGCCACGGTCTATCTGCCGCAAAAATGCCAGCATTAGCGTGGGGCCAGGACCG **BbsI (1426)** **Bsp120I (1487)**
280 K S K R E K K D R V F T D K T S A T V I C R K N A S I S V R A Q D R

1501 CTAATCAGTACTGATTTGACATTCAGTGTCAAAGCAGCAGAGGCTCTTCTGACCCCAAGGGTGACGTGCGGAGCTGTACACTCTCTGCAGAGAGAG **Acc65I (1560)**
313 Y Y S S S W S E W A S V P C S V P G V G V P G V G R A V P G G S S

1601 CCTGCCTGGACTCAGTGCCAGCAGCTTTACAGAAAGCTCTGCACACTGGCCTGGAGTGACATCCACTAGTGGACACATGGATCTAAGAGAAGAGGGAG **ApaLI (1655)** **SpeI (1665)**
347 P A W T Q C Q Q L S Q K L C T L A W S A H P L V G H M D L R E E G

1701 ATGAAGAGACTACAAATGATGTTCCCATATCCAGTGTGGAGATGGCTGTGACCCCAAGGACTCAGGGACAACAGTCAAGTCTGCTTGCAGAAAGATCCA **PshAI (1768)** **BamHI (1793)**
380 D E E T T N D V P H I Q C G D G C D P Q G L R D N S Q F C L Q R I H
1801 CCAGGTCTGATTTTTTATGAGAAGCTGCTAGGATCGGATATTTTACAGGGGAGCCTTCTGCTCCCTGATAGCCCTGTGGCCAGCTTTCATGCTCC **BamHI (1793)**
413 Q G L I F Y E K L L G S D I F T G E P S L L P D S P V G Q L H A S

1901 CTAATCAGTACTGATTTGACATTCAGTGTCAAAGCAGCAGAGGCTCTTCTGACCCCAAGGGTGACGTGCGGAGCTGTACACTCTCTGCAGAGAGAG **BstEII (1933)** **Bsu36I (1927)** **NcoI (1981)**
447 L L G L S Q L L Q P E G H H W E T Q Q I P S L S P S Q P W Q R L L

2001 TCCGTTCAAATCCTTCGAGCCTCCAGCCTTTGCTGCTGAGCCGCGGTCTTTGCCATGGAGCAGCAACCCTGAGTCCCTAAAGGCAGCAGCT **StuI (2027)** **XmaI (2048)** **NcoI (2061)**
480 L R F K I L R S L Q A F V A V A A R V F A H G A A T L S P •

2101 CAAGGATGGCAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAAGTGAATGCAGTGAAGGATGCTTTATTTGTGAAA **NheI (2112)**

2201 TTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAGTTAAACAACAACATTGCATTATTTTATGTTTCAGTTTCAGGGGAGGT **HpaI (2250)** **MfeI (2261)**

2301 GTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATCTAAAATACAGCATAGCAAACCTTAACTCCAAATCAAGCCTCTACTT **EcoRI (2346)**
2401 GAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTGCCAATGTCATTAGCTTTGACGCTCACCTTCTTTCATGGAGTTAAGAT

2501 ATAGTGTATTTTCCAAGGTTTGAAGTACTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTATAGTAAAATATTGAGAAATAA **SapI (2528)** **SspI (2585)** **SwaI (2599)**

EcoO109I (2660)

2601 TTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTA

2701 GGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTTCCTGGTGTACTTGAGGGGGATGAGTTCCTCAATGGTGGT
 141 • N R T Y K L P I L E E I T T
 SacI (2860) **BstXI (2889)**

2801 TTTGACCAGCTTGCCATTCACTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCTGATG
 126 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 V V R I

2901 GATCTGTCCACCTCATCAGAGTAGGGTGCCTGACAGCCACAATGGTGTCAAAGTCCTTCTGCCCGTTGCTCACAGCAGACCCAATGGCAATGGCTTCAG
 92 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 A I A E A
 StuI (3024)

3001 CACAGACAGTGACCCTGCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCAGTCTTGGTCTCTGATGGCCGCCCGACATGGTCTTGTGTG
 59 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 H H K N D
 BbsI (3170)

3101 CTCATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTCTTCATGGTGGCCCTCTATAGTGAGTC
 26 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 **XmnI (3166)**

3201 GTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACATAACGAGCTCTGCTT
SacI (3289)

3301 ATATAGACCTCCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGAAAGTCCCCTTGATTTACTAGTCAAAAACA
SpeI (3387)

3401 AACCTCCATTGACGTCAATGGGGTGGAGACTTGAAATCCCGTGAGTCAAACCGCTATCCACGCCATTGATGACTGCCAAAACCGCATCATCATGGT

SnaBI (3515)

3501 AATAGCGTAGCTAATACGTAGATGTACTGCCAAGTAGAAAGTCCCATAAAGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACG

NdeI (3620)

3601 TCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTA

SdaI (3798)

3701 TTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTACGCCAGGCGGGCCATTTACCGTAAAGTTATGTAACGCC

PacI (3806) BspLU11I (3816)

3801 TGCAGGTTAATTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCTTCTGCGGTTTTTCCATAGGCTCCGCCCCCTG

3901 ACGAGCATCAGAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTTCCCTGGAAGCTCCCTCGTGCCTC

4001 TCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCCTTTCTCCCTTCGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCC

ApaLI (4130)

4101 GTGTAGGTCGTTCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGG

4201 TAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAA

4301 CTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAGAGATTGGTAGCTCTTGATCCGGCAAACAAACC

4401 ACCGCTGGTAGCGGTGGTTTTTTTGTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACG

EagI (4566)
NotI (4565)

4501 CTCAGTGGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGAATAAAATATCTTTATTTTCATTACAT
 PacI (4546) SmaI (4555)

4601 CTGTGTGTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGTGCAA

4701 GTGCAGGTGCCAGAACATTTCTCTATCGAA