



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

101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

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

301 GCCATCCACGCCGGTTGAGTCGCGTTTCTGCCGCTCCCGCCTGTGGTGCTCTGAACTGCGTCCGCCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
NgoMI (441)
NaeI (441) 401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCGTGACCCTGCTTGCTCAACTCTACGCTTTTGTTCGTTT

BstEII (555)
KasI (535) 501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGCGCCCTACCTGAGATCACCGGTACCATTGGGCTCCGTGCTGAGCACCGACAGCGGCAATCGGC **AgeI (552)** **NcoI (560)** **KasI (597)**
1▶ M G S V L S T D S G K S A

Bsp120I (620) 601 GCCCGCCTTGCCACCGCGCGGGCCCTGGAGCGCAGGAGGGACCCGGAGTTGCCCGTCACGTCCTTCGACTGCGCCGTGTGCCTTGAGGTGTTACACCAG **SmaI (638)**
13▶ P A S A T A R A L E R R R D P E L P V T S F D C A V C L E V L H Q

BspEI (704) 701 CCTGTCCGGACCCGCTGTGGCCACGTATTCTGCCGTTCTGTATTGCTACCAGTCTAAAGAACAACAAGTGGACTGCTCTTATTGCCGGGCATATCTTC **MscI (717)** **BalI (717)**
47▶ P V R T R C G H V F C R S C I A T S L K N N K W T C P Y C R A Y L

XmnI (805) 801 CTTCAGAAGGAGTTCAGCAACTGATGTAGCCAAAAGAATGAAATCAGAGTATAAGAAGTGGCTGAGTGTGACACCCCTGTTTGCCTCAGTAAATGAG **BsiBI (1093)**
80▶ P S E G V P A T D V A K R M K S E Y K N C A E C D T L V C L S E M R **BsaBI (1093)**

901 GGCACATATTCGGACTTGTGAGAAGTACATAGATAAGTATGGACCACTACAAGAACTTGAGGAGACAGCAAGGTGTGTATGTCCCTTTTGTGAGAGG **EcoI (1057)**
113▶ A H I R T C Q K Y I D K Y G P L Q E L E E T A A R C V C P F C Q R **Eco147I (1057)**

1001 GAACTGTATGAAGACAGCTTGCTGGATCATTGTATTACTCATCAGATCGGAACGGAGCGCTGTGTTCTGTCCACTTTGCCGTTAATACCCGATGAGA **BsiBI (1093)**
147▶ E L Y E D S L L D H C I T H H R S E R R P V F C P L C R L I P D E **BsaBI (1093)**

1101 ATCCAAGCAGCTTCAGTGGCAGTTAATAAGACATCTGCAAGTTAGTCACACTTTGTTTTATGATGATTTTATAGATTTAATAATGAGGAAGCTCT **NheI (1296)**
180▶ N P S S F S G S L I R H L Q V S H T L F Y D D F I D F N I I E E A L

AgeI (1217) 1201 TATCCGAAGAGTCTTAGACCGGTCACTTCTTGAATATGTAATCACTCGAACACCACATAATTTTATTAACGAAGGAAAAGGACCCTGAATGCTA **NheI (1296)**
213▶ I R R V L D R S L L E Y V N H S N T T •

MscI (1302) 1301 GCTGCCAGACATGATAAGATACATTGATGAGTTTGGACAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGC **BalI (1302)**

HpaI (1434) 1401 TTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAAACAACAATTCATTCTTTTATGTTTCAGGTTTTCAGGGGAGGTGTTGGGAGGTTTTTTAA **MfeI (1445)**

EcoRI (1530) 1501 AGCAAGTAAAACCTCTACAAATGTGGTATGGAATCTAAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCTACTTGAATCCTTTCTGAGG **BalI (1302)**
1601 GATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTCTTTTCATGGAGTTTAAAGATATAGTATTTTCCCA

SspI (1769) 1701 AGGTTTGAAGTAGCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTAGTAAAATATTGAGAAATAATTTAAATACATCATTG **Swal (1783)**

1801 CAATGAAATAAATGTTTTTTATAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGACCT

1901 TTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTTAGTTCTGGTGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCA **BstXI (2073)**
141▶ N R T Y K L P I L E E I T T K V L K G

SacI (2044) 2001 TTCATCTCAATGAGCACAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCTGATGGATCTGTCCACCTCAT **BstXI (2073)**
120▶ 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 S R D V E D

2101 CAGAGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTACGACAGACAGTGACCCT **StuI (2208)** **Eco147I (2208)**
87▶ 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 C V T V R

2201 GCCAATGTAGGCCTCAATGTGGACAGCAGAGATGATCTCCCCAGTCTTGGTCTGATGGCCGCCCGACATGGTGTCTTGTCTCATAGAGCATGGTG **BspHI (2358)**
54▶ 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 E Y L M T

XmnI (2350) 2301 ATCTTCTCAGTGGCGACCTCCACAGCTCCAGATCCTGCTGAGAGATGTTGAAGGCTTTCATGATGGCCCTCCTATAGTGAAGTATTATACTATGCCG **BalI (1302)**
20▶ I K E T A V E V L E L D Q Q S I N F T K M

VspI (2416)
 AseI (2416)

2401 ATATACTATGCCGATGATTAATTGTCAAACACAGCTGGATGGCGTCTCCAGCTTATCTGACGGTTCACTAAACGAGCTCTGCTTATATAGACCTCCCACC

SpeI (2571)
 2501 GTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTACTAGTCAAAACAAACTCCCATTGACGT

2600 CAATGGGGTGGAGACTTGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCATGGTAATAGCGGTACTAA

SnaBI (2699)
 Eco105I (2699)

2700 TACGTAGATGACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACGTCATTGACGTCAATAGGGGGCGTA

NdeI (2804)

2800 CTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGG

PstI (2983)
 SdaI (2982)PacI (2990)

2900 GAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTACGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCCCTGCAGGTTAA TTA

BspLU11I (3000)

2998 AGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCTTGTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAA

3098 AAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCTGGAAGCTCCCTCGTGCCTCTCCTGTTCCGACC

3198 CTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGAAGCGTGGCGCTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGGTGAGGTCGTTT

ApaLI (3314)

3298 GCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTCCAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTT

3398 ATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGTACAGAGTCTTGAAAGTGGTGGCCTAACTACGGCTACT

3498 AGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAACCACCGCTGGTAGCG

3598 GTGGTTTTTTTGTGTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAACGA

EagI (3750)
 PacI (3730) SwaI (3739) NotI (3749)

3698 AACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCCAATAAAATATCTTTATTTTATTACATCTGTGTGTTGGTT

3798 TTTTGTGTGAATCGTAACATAACGCTCTCCATCAAAAACAAAACGAAACAAAACAACTAGCAAAATAGGCTGTCCCAGTGCAAGTGACGGTGCCAG

3898 AACATTTCTATCGAA