



PvuI (7)
SgfI (6) 1 GGATCTGGGATCGCTCCGGTGCCTGTCAGTGGGAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGAGGGGTGGCAATTGAACGGGTGCCTA MfeI (82) EcoNI (96)

101 GAGAAGGTGGCGCGGGTAAACTGGAAAGTGATGTCGTGTAAGTGGCTCCGCCTTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245) 201 **Psp1406I (203)** **PvuII (239)** **Bsu36I (291)**
GTGAACGTTCTTTTTCGCAACGGGTTTGGCCGAGAACACAGCTGAAGCTTCAGAGGGCTCGCATCTCTCTTACAGCGCCCGCCGCTACCTGAGGCC EcoNI (287)

301 GCCATCCACGCCGTTGAGTGCCTTCTGCCGCTCCCGCCTGTGGTGCCTCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

401 **NgoMIV (441)** **NaeI (441)**
GGGCCTTTGTCCGGCGCTCCCTTGGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTTGCTGACCCTGCTTCTCAACTCTACGTCTTTGTTTCGTTT

501 **KasI (535)** **AgeI (552)** **BspHI (560)**
TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGGCCCTACCTGAGATCACCGGTCATCATGAAGTTCAGTACAAGGAGGACCATCCCTTTGAGTA 1▶ M K F Q Y K E D H P F E Y

601 **SandI (644)** **EcoO109I (644)** **Tth111I (640)**
TCGGAAAAGGAAGGAGAAAAGATCCGGAAGAAATATCCGGACAGGGTCCCGTGATTGTAGAGAAGGCTCCAAAAGCCAGGGTGCCTGATCTGGACAAG 13▶ R K K E G E K I R K K Y P D R V P V I V E K A P K A R V P D L D K

701 **MscI (732)** **Bsu36I (775)**
AGGAAGTACCTAGTGCCTCTGACCTTACTGTTGGCCAGTTTACTTCTTAATCCGGAAGAGAATCCACCTGAGACCTGAGGACGCCCTATTCTTCTTTG 47▶ R K Y L V P S D L T V G Q F Y F L I R K R I H L R P E D A L F F F

801 **XcmI (821)** **NcoI (830)** **BspHI (855)** **BbsI (862)**
TCAACAACACCATCCCTCCACCACTGCTACCTGAGGCAACTGTATGAGGACAATCATGAGGAAGACTATTTCTGTATGTGCCTACAGTGCATGAGAG 80▶ V N N T I P P T S A T M G Q L Y E D N H E E D Y F L Y V A Y S D E S

901 **MscI (959)** **NheI (953)**
TGCTATGGGAAATGAGTGGTTGGAAGCCAGCAGATGGGAGCACCTGGACTTGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAC 113▶ V Y G K •

1001 **HpaI (1091)**
CACAACCTAGAATGCAGTGAAGAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAACAAGTTAACAAC

1101 **MfeI (1102)** **EcoRI (1187)**
AACAAATTGCATTCATTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTCAAAATA

1201 CAGCATAGCAAACCTTAACTCCAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCAT

1301 TAGCTGTTTGAGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGATTTTCCAAGGTTTGAAGTCTCTTCTTATGTTTAAATGCACT

1401 **SspI (1426)** **SwaI (1440)**
GACCTCCACATTCCTTTTTAGTAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTC

1501 **EcoO109I (1501)**
AAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTTAATAGAAATGGACAGCAAGAAAGCGAGCTTCTAGCTTTAG 141▶ •

1601 **SacI (1701)** **BstXI (1730)**
TTCCTGGTACTTGAGGGGATGAGTTCCTCAATGGTGGTTTTGACCAGCTTGCCATTCATCTCAATGAGCACAAGCAGTCAAGGAGCATAGTCAGAGA 139▶ 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 C D P A Y D S I

1701 **StuI (1865)**
TGAGCTCTCTGCACATGCCACAGGGGTGACCACCTGATGGATCTGTCCACCTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCTCT 106▶ 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 A V I T D F D K

1801 **BspHI (2015)** **BbsI (2011)** **XmnI (2007)** **AseI (2073)**
CTGCCGTTGCTCACAGCAGACCAATGGCAATGGCTTCAAGCAGACAGTACCCTGCAATGTAGGCTCAATGTGGACAGCAGAGATGATCTCCCA 73▶ 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 H V A S I I E G

1901 **SacI (2130)**
GTCTTGGTCTGATGGCCGCGCCGACATGGTGTGCTTCTCATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCTGTGAG 39▶ 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 V L E L D Q Q S

2001 **XmnI (2007)** **SacI (2130)**
AGATGTTGAAGTCTTCATGATGGCCCTCTATAGTGAGTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACAGCGTGGATGCC 6▶ I N F T K M

2101 **SpeI (2228)**
GTCTCCAGCTTATCTGACGGTTCACATAACGAGCTCTGCTTATATAGACCTCCACCGTACACGCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTT

2201 **SnaBI (2356)**
ACGACATTTTGGAAAGTCCCGTGTGATTTACTAGTCAAACAACCTCCATTGACGTCAATGGGGTGGAGACTTGGAAATCCCGTGTGAGTCAAACCGCTA

2300 TCCACGCCATTGATGTAAGTGCACAAAACCGCATCATCATGGTAATAGCGATGACTAATACGTAGATGTAAGTGCACAAAGTGGAAAGTCCCATAAAGTGCATG

NdeI (2461)

2400 TACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGTACTGCCAAGTGGGCAGTTT

2500 ACCGTAAATACTCCACCCATTGACGTCAATGAAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGG

PstI (2640)
SdaI (2639) **PacI (2647)** **BspLU11I (2657)**

2600 CGGTCAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCTGCAGGTTAA TTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAA

2698 AAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTA

2798 TAAAGATACCAGGCGTTTTCCCTGGAAGCTCCCTCGTGCCTCTCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAA

ApaLI (2971)

2898 GCGTGGCGCTTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTACGCCGA

2998 CCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCG

3098 AGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTA

3198 CCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAA

PacI (3387) **SwaI (3396)**

3298 AGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACA

EagI (3407)
NotI (3406)

3398 TTTAAATC AGCGGCCGAATAAAATATCTTTATTTTATTACATCTGTGTGTTGGTTTTTTGTGTGAATCGTAACTAACATACGCTCTCCATCAAAACAA

3498 AACGAAACAAAACAACTAGCAAAATAGGCTGTCCCAGTGCAAGTGCAAGTGCAGGTGCCAGAACATTTCTCTATCGAA