



PvuI (7)
SgfI (6) 1 GGATCTGCGATCGCTCCGGTGCCCGTCAGTGGGAGAGCGCACATCGCCACAGTCCCCGAGAAGTTGGGGGAGGGGTGCGCAATTGAACGGGTGCCTA
MfeI (82)
101 GAGAAAGTGGCGCGGGTAAACTGGAAAAGTGTGCTGTACTGGCTCCGCCTTTTCCGAGGGTGGGGGAGAACCCTATATAAGTGCAGTAGTCGCC

HindIII (245)
Psp1406I (203) 201 GTGAACGTTCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGCTGAAGCTTCGAGGGCTCGCATCTCTCTTCACGCGCCGCCCTACCTGAGGCC
PvuII (239)
Bsu36I (291)
301 GCCATCCACGCCGGTTGAGTCGCGTTTCTGCCGCTCCCGCCTGTGGTGCCTCCTGAAGTGCCTCCGCGTCTAGGTAAGTTTAAAGCTCAGGTCGAGACC

NgoMIV (441)
401 GGGCCTTTGTCCGGCGCTCCCTTGAGCCTACCTAGACTCAGCCGGCTCTCCACGCTTGGCTGACCTGCTTGTCAACTCTACGCTTTTGTTCGTTT

AgeI (552) **BspHI (560)**
501 TCTGTTCTGCGCCGTTACAGATCCAAGCTGTGACCGGCGCTACCTGAGATCACCGGTCATCATGACTTCGGAAATCACTTATGCTGAAGTGAGGTTCAA
1▶ M T S E I T Y A E V R F K

EcoRI (604) **Bsu36I (614)** **PstI (638)**
601 AAATGAATTCAAGTCCTCAGGCATCAACACAGCCTCTTCTGCAGCTTCCAAGGAGAGGACTGCCCTCACAAAAGTAATACGGATTCCCAAAGCTGCTT
13▶ N E F K S S G I N T A S S A A S K E R T A P H K S N T G F P K L L

SspI (773)
701 TGTGCCTCACTGTTGATATTTTTCTGCTATTGGCAATCTCATTCTTTATTGCTTTTGTCAATTTCTTTCAAAAATATTCTCAGCTTCTTAAAAAAGA
47▶ C A S L L I F F L L L A I S F F I A F V I F F Q K Y S Q L L E K K

BstXI (880)
801 CTACAAAAGAGCTGGTTCATACAACATTGGAGTGTGTGAAAAAATATGCCCGTGAAGAGACAGCCTGGAGCTGTTGCCAAAAGATTGGAAGTCATT
80▶ T T K E L V H T T L E C V K K N M P V E E T A W S C C P K N W K S F
901 TAGTTCCAAGTCTACTTTATTTCTACTGAATCAGCATCTTGGCAAGACAGTGAAGGACTGTGCTAGAATGGAGGCTCACCTGCTGGTGATAAACT
113▶ S S N C Y F I S T E S A S W Q D S E K D C A R M E A H L L V I N T

SapI (1003)
1001 CAAGAAGAGCAGGATTTTCATCTTCCAGAATCTGCAAGAAGAATCTGCTATTTTGTGGGGCTCTCAGATCCAGAAGGTCAGCGACATTGGCAATGGGTTG
147▶ Q E E Q D F I F Q N L Q E E S A Y F V G L S D P E G Q R H W Q W V

BbrPI (1139) **Eco47III (1163)**
1101 ATCAGACACCATACAATGAAAGTTCACATTCTGGCATCCAGTGAGCCAGTATCCAATGAGCGCTGCGTTGTGCTAAATTTTCGTAATCACCCAA
180▶ D Q T P Y N E S S T F W H P R E P S D P N E R C V V L N F R K S P K
1201 AAGATGGGGCTGGAATGATGTTAATTGTCTGGTCTCAAAGTCAAGTGTGAGATGATGAAGATCCACTTATGAAGTGAACATTCTCCATGAACAGGT
213▶ R W G W N D V N C L G P Q R S V C E M M K I H L •

MscI (1321)
NheI (1315)
1301 GGTGGATTGGTATCGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTGGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTGTG

HpaI (1453) **MfeI (1464)**
1401 AAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAACAATTGCATTATTTATGTTTCAGGTTCAAGGGGA

EcoRI (1549)
1501 GGTGTGGGAGGTTTTTAAAGCAAGTAAACCTCTACAAATGTGGTATGGAATTCTAAATACAGCATAGCAAACCTTAACCTCAAATCAAGCCTCTA
1601 CTTGAATCCTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTGCAGCCTCACCTTCTTTCATGGAGTTAA

SapI (1731) **SspI (1788)**
1701 GATATAGTGATTTTTCCCAAGGTTTGAAGTACTGCTCTTCAATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTTAGTAAAATTCAGAAA

SwaI (1802) **EcoO109I (1863)**
1801 TAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGAC
1901 TTAGGGAACAAAGAACCTTAAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTGTAGTTCCTGGTGTACTTGAGGGGATGAGTTCCTCAATGGT
144▶ • N R T Y K L P I L E E I T

SacI (2063) **BstXI (2092)**
2001 GGTTTTGACCAGCTTGCCATTCTCAATGAGCACAAAGCAGTCAGGAGCATAGTCAGAGATGAGCTCTCTGCACATGCCACAGGGGCTGACCACCCTG
127▶ 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 V V R
2101 ATGGATCTGTCCACTCATCAGAGTAGGGGTGCTGACAGCCACAATGGTGTCAAAGTCTTCTGCCGTTGCTCACAGCAGACCCAATGGCAATGGCTT
93▶ 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 A I A E

StuI (2227)
2201 CAGCACAGACAGTACCCTGCCAATGTAGGCCCTCAATGTGGACAGCAGAGATGATCTCCCGTCTTGGTCTGATGGCCGCCCGACATGGTCTTGT
60▶ 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 H H K N

BbsI (2373) **XmnI (2369)**
2301 GTCCTCATAGAGCATGGTGTCTTCTCAGTGGCGACCTCCACCAGCTCCAGATCCTGCTGAGAGATGTTGAAGGTTCTCATGGTGGCCCTCTATAGTGA
27▶ 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

2401 **AseI (2435)** **SacI (2492)**
GTCGTATTATACTATGCCGATATACTATGCCGATGATTAATTGTCAAACACAGCGTGGATGGCGTCTCCAGCTTATCTGACGGTTCACATAAACGAGCTCTG

2501 **SpeI (2590)**
CTTATATAGACCTCCCACCGTACACGCCTACCGCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGAAAGTCCCCTTGATTTACTAGTCAAA

2601
ACAAACTCCCATTGACGTCAATGGGGTGGAGACTTGGAAATCCCCGTGAGTCAAACCGCTATCCACGCCATTGATGTACTGCCAAAACCGCATCATCAT

2701 **SnaBI (2718)**
GGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTG

2801 **NdeI (2823)**
ACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCGAGTTTACCGTAAATACTCCACCATTGACGTCAATGGAAAGTCC

2901
CTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTGAGCCAGGCGGGCCATTTACCGTAAGTTATGTAAC

3001 **PacI (3009)** **PstI (3002)** **SdaI (3001)** **BspLU11I (3019)**
GCCTGCAGGTTAATTAAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCC

3101
CTGACGAGCATCAAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTTCCCTGGAAGCTCCCTCGTGCG

3201
CTCTCTGTTCCGACCCTGCCGCTTACCGGATACCTGTCCGCCTTCTCCCTTCGGAAGCGTGGCGCTTCTCATAGCTCACGCTGTAGGTATCTCAGT

3301 **ApaLI (3333)**
TCGGTGTAGGTCGTTGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTGAGCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACC

3401
CGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCC

3501
TAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAA

3601
ACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTG

3701 **EagI (3769)** **PacI (3749)** **Swal (3758)** **NotI (3768)**
ACGCTCAGTGGAACGAAACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCAGCGGCCGCAATAAAATATCTTTATTTTCATTA

3801
CATCTGTGTGTTGGTTTTTTGTGTAATCGTAACTAACATACGCTCTCCATCAAACAAAACGAAACAAAACAACTAGCAAATAGGCTGTCCCCAGTG

3901
CAAGTGCAGGTGCCAGAACATTTCTCTATCGAA