



EcoRI (19)

NotI (2)

XbaI (15) SdaI (29)

SspI (49)

1 CGCGCCGCTATGCATCTAGAATTCCTGCAGGAGCTTGAATAAAATGAATATTAGAAGCTGTTAGAATAAGAGAAAATGACAGAGGAAAACCTGAAAGGGAG

101 AACTGAAAGTGGGAAATTCCTCTGAGGCAGAAAGGACCATCCCTTATAAATAGCACAGGCCATGAAGGAAGATCATTCTCACTGCAGCCTTTGACAGCCT

BspHI (245)

SphI (267)

201 TTGCCTCATCTTGCAGGTAGCAGCCGACACCAGCCTGGCTTCATCATGATTCTGGGGCCCTGCATGCTGCTGCTGCTGCTGGCCTGAGGCTA

301 CAGCTCTCCCTGGGCATCATCCAGTTGAGGAGGAGAACCCGGACTTCTGGAACCGCAGGCAGCCGAGGCCCTGGGTGCCCAAGAAGCTGCAGCCTG

19 Q L S L G I I P V E E E N P D F W N R E A A E A L G A A K K L Q P

401 CACAGACAGCCGCAAGAACCTCATCATCTTCTGGGCGATGGGATGGGGGTGTCTACGGTGACAGCTGCCAGGATCCTAAAAGGGCAGAAGAAGGACAA

52 A Q T A A K N L I I F L G D G M G V S T V T A A R I L K G Q K K D K

501 ACTGGGCTGAGATACCCCTGGCTATGGACCGCTCCCATATGTGGCTCTGTCCAAGACATAAATGTAGACAAACATGTCCAGACAGCAGCGGCAACGAGG

85 L G P E I P L A M D R F P Y V A L S K T Y N V D K H V P D S G A T

601 GCCACGGCTACCTGTGCGGGTCAAGGGCAACTCCAGACCATTGGCTTGAGTGACGCCGCCGCTTTAACAGTGCAACACGACAGCGGGCAACGAGG

119 A T A Y L C G V K G N F Q T I G L S A A A R F N Q C N T T R G N E

701 TCATCTCCGTGATGAATCGGGCAAGAAAGCAGGGAAGTCAGTGGGAGTGGTAACCACACAGAGTGCAGCACGCCTGCCAGCGGCACCTACGCCCA

152 V I S V M N R A K K A G K S V G V T T T R V Q H A S P A G T Y A H

801 CACGGTGAACCGCAACTGGTACTCGGACGCCGACCTGCCTCGGCCCGCAGGAGGGTGCAGGACATCGCTACGACGCTCATCTCCAATGGAC

185 T V N R N W Y S D A D V P A S A R Q E G C Q D I A T Q L I S N M D

901 ATTGATGTATCCTGGTGGAGGCCGAAAGTACATGTTTCGCATGGGAACCCAGACCCTGAGTACCAGATGACTACAGCCAAGTGGGACCAGGCTGG

219 I D V I L G G G R K Y M F R M G T P D P E Y P D D Y S Q G G T R L

1001 GGGGAAGAATCTGGTGCAGGAATGGCTGGCGAAGCGCAGGTCGCCGGTATGTGTGAACCGCACTGAGCTATGCAGGCTTCCCTGGACCCGCTGT

252 D G K N L V Q E W L A K R Q G A R Y V W N R T E L M Q A S L D P S V

1101 GACCCATCTCATGGTCTCTTTGAGCCTGGAGACATGAAATACGAGATCCACCGAGACTCCACACTGGACCCTCCCTGATGGAGATGACAGAGGCTGCC

285 T H L M G L F E P G D M K Y E I H R D S T L D P S L M E M T E A A

SacII (1227)

1201 CTGCGCTGCTGAGCAGAAACCCCGGGCTTCTCTCTCTGTTGGAGGTTGGTCGCATCGACCAGGTCATCACGAAAGCAGGGCTTACCGGGCACTGA

319 L R L L S R N P R G F F L F V E G G R I D H G H H E S R A Y R A L

1301 CTGAGACGATCATGTTGACGACGCCATTGAGAGGGCGGGCCAGCTACCAGCGAGGAGGACAGCTGAGCCTGCTACTGCCGACCACTCCACGCTCT

352 T E T I M F D D A I E R A G Q L T S E E D T L S L V T A D H S H V F

1401 CTCCTTGGAGGCTACCCCTGCGAGGGAGCTCCATCTTCTGGGCTGGCCCTGGCAAGGCCCGGGACAGGAAGGCTACACGGTCTCTTATACGGAAC

385 S F G G Y P L R G S S I F G L A P G K A R D R K A Y T L L C Y G N

1501 GGTCCAGGCTATGTCTCAAGGACGGCGCCCGCCGGATGTTACCGAGAGCGAGAGCGGGAGCCCGAGTATCGGCAGCAGTGCAGAGTGGCCCTGGACG

419 G P G Y V L K D G A R P D V T E S E S G S P E Y R Q Q S A V P L D

1601 AAGAGACCCACGAGGCGAGGACGTGGCGGTGTTCCGCGCGGCCCGCAGGCGCACTGGTTCACGGCGTGCAGGAGCAGACCTTACATAGCCACGTCAT

452 E E T H A G E D V A V F A R G P Q A H L V H G V Q E Q T F I A H V M

1701 GGCCTTCGCGCTGCTGAGCCCTACACCGCTGCGACTGGCGCCCGCCCGCAGCAGCAGCGCCGCGCAGCCGGGGCGTCCCGGTCCAAGCGT

485 A F A A C L E P Y T A C D L A P P A G T T D A A H P G R S R S K R

NheI (1811)

1801 CTGGATTGAAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATT

519 L D •

1901 TGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAACAATTGCATTCATTTATGTTTACAGTTTACGGGGAGGTGT

2001 GGGAGTTTTTTAAAGCAAGTAAAACCTCTACAAATGTGGTATGGAATTAATTCTAAAATACAGCATAGCAAAACTTTAACCTCAAATCAAGCCTCTAC

2101 TTGAATCCTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGACGCCCTCACCTTCTTTCATGGAGTTTAAAG

SspI (2290)

2201 ATATAGTGTATTTTCCCAAGGTTTGAAGTACTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTATGATAAAATTCAGAAAT

2301 AATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGCAGAAATCCAGATGCTCAAGGCCCTTATAATATCCCCAGTTTATGATGTTGACT

2401 TAGGGAACAAAGGAACCTTTAATAGAAATTTGACAGCAAGAAAGCGAGCTTCTAGCTTATCCTCAGTCTGCTCCTCTGCCAAGTGCACGCAGTTGC

125 • D Q E E A V F H V C N G

2501 CGGCCGGTTCGCGCAGGGGCAACTCCCGCCCCACGGCTGCTCGCGATCTCGGTATGGCCGGCCGGAGGCGTCCGGAAGTTCTGTGGACACGACCTC

112 A P D R L A F E R G W P Q E G I E T M A P G S A D R F N T S V V E

2601 CGACCACTCGGCGTACAGCTCGTCCAGGCCGCGCACCCACACCCAGGCCAGGGTGTGTCCGGCACCACCTGGTCTGGACCGGCTGATGAACAGGGTC

79 S W E A Y L E D L G R V W V W A L T N D P V V Q D Q V A S I F L T

SgrAI (2718)

AatII (2794)

2701 ACGTCGTCCCGACACACCGGCGAAGTCCTCCACGAAGTCCCGGAGAACCCGAGCCGGTCCGTCAGAACTCGACCGCTCCGGCGACGTCGCGCG

45 V D D R V V G A F D D E V F D R S F G L R D T W F E V A G A V D R A

2801 CGGTGAGCACCAGGAAACGGCACTGGTCAACTGGCCATGATGGCTCCTCTGTCAGGAGAGAAAGAGAAGGTTAGTACAATTGCTATAGTGAGTTGT

12 T L V P V A S T L K A M

2901 ATTATACTATGCAGATATACTATGCCAATGATTAATTGTCAAAGTACAGGCTGCAGGTTAATTAAGAACATGTGAGCAAAAGGCCAGCAAAGGCCAGGAA

3001 CCGTAAAAAGGCCGCTTGTGGCTTTTTCCATAGGCTCCGCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACA

3101 GGACTATAAAGATACCAGGCGTTTTCCCTGGAAGCTCCCTGTCGCTCTCTGTTCCGACCCTGCCGCTTACCGGATACCTGTCCGCCTTTCTCCCTT

3201 CGGGAAGCGTGGCGTTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTGCTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTCA

3301 GCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGTAGTCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGC

3401 AGAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTCGCTCTGCTGAAGC

3501 CAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGTATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAG

3601 AAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAA

3701 TTAACATTTAAATCA