



EcoRI (23)

NotI (2) XbaI (19) SdaI (38)

1 CGCGCCGCGTCGACGATATCTAGAATTCGGATCCTGCAGGACCTTGGTTCTCTAGCTGGCCCTTCTCTCTATAAATACCAGCTCTGGTATTTTCG
101 CTTGGCAGCTGTTGCTGCTAGGGAGACGGCTGGCTTGACATGCATCTCTGACAAAAACAAACCCGTGGTGTGAGTGGGTGGGGCGGTGTGAGTAGGG
201 GGATGAATCAGAGAGGGGGCGAGGGAGACAGGGGCGCAGGAGTCAAGGCGATGCGGGGGTGCAGTACACGCAGTTGAAACAGTCTCAGAAGA
301 TTCTGAAACTATCTTGCTGGCTATAAACTTGAGGGAAGCAGAAGGCCAACATTCTCCCAAGGAAACTGAGGCTCAGAGTAAAACCCAGGTATCAGT

Acc65I (442)

AgeI (439)

401 GATATGCATGTGCCCCGGCCAGGGTCACTCTCTGACTAACCGGTACCTACCTACAGGCCTACCTAGAGACTCTTTTGAAGGATGGTAGAGACTGTCC
501 GGGCTTTGCCACAGTCTTTGAAACCTCAGCATTTTCTAGGCAACTTGTGGAATAAAACACTTCGGGGTCTTCTTGTTCATTCCAATAACCTAAAA
601 CCTCTCTCGGAGAAAATAGGGGCGCTCAAACAAACGAAATTCTCTAGCCGCTTTCCCAAGGATAAGGCAGGCATCAAATGGAATAAAAGGGGCGGG
701 CGGGGGTCTCTGTGAGCTCCTTGCCTGTGAAACCCAGCAGGCCTGCCTGTCTTCTGTCTCTTGGGGTGTCCAGGGGCGCAGGCCTCTTGGGGGA
801 GCTGGCCTCCCCGCCCTCGCTGTGGCCGCCCTTTCTTGGCAGGACAGAGGGATCTGCAGTGTCCAGGGAGGGGCGCGGGGGGTGATGTCAGGA
901 GGGCTACAAATAGTGACAGAGCTAAGGGGCTCCGTACCCTTTCACATCCACTCCAGCCGGCTGCCGCCGCTGCCTCTCTGTGCGTCCGCCAG

NcoI (1022)

1001 CCAGCCTCGTCCAGCCGCCACCATGGTTCTGGGGCCCTGCATGCTGCTGCTGCTGCTGCTGGGCTGAGGCTACAGCTCTCCCTGGGCATCATCCC
1101 AGTTGAGGAGGAGAACC CGACTTCTGAAACCGCAGGGCAGCCAGGCGCTGGTGCCGCAAGAGCTGCAGCTGCACAGACAGCCCAAGAACCTC
1201 ATCATCTTCTGGCGATGGGATGGGGTGTCTACGGTACAGCTGCCAGGATCTAAAAGGGCAGAAGAAGGACAAACTGGGGCTGAGATACCCCTGG
60 M V L G P C M L L L L L L L L L G L R L Q L S L G I I P
26 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 A Q T A A K N L
60 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 L G P E I P L

NdeI (1317)

1301 CTATGGACGCTTCCCATATGTGGCTCTGTCCAAGACATAAATGTAGACAAACATGTGCCAGACAGTGGAGCCACAGCCACGGCCTACCTGTGCGGGT
93 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 A T A Y L C G V
1401 CAAGGGCACTTCCAGACCATTGGCTTGTAGTGCAGCCGCCGCTTAAACAGTGAACACGACACGCGGCAACGAGGTATCTCCGTGATGAATCGGGCC
126 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 V I S V M N R A
1501 AAGAAAGCAGGGAAGTCACTGGGAGTGGTAACCACACAGAGTGCAGCAGCCTCGCCAGCCGGCACCTACGCCACAGGTGAACCGCAACTGGTACT
160 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 T V N R N W Y
1601 CGGACGCCGAGTGCCTGCCTCGGCCCGCAGGAGGGTGCAGGACATCGTACGAGCTCATCTCCAACATGGACATTGATGTGATCCTGGTGGAGG
193 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 I D V I L G G G
1701 CCGAAAGTACATGTTTCGATGGGAACCCAGACCCTGAGTACCCAGATGACTACAGCAGGAGGTTGGGACAGGCTGGACGGGAAGAATCTGGTGCAGGAA
226 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 D G K N L V Q E
1801 TGGCTGGCAAGCCAGGGTCCCGGATGTGTGGAACCCAGTGCAGCTCAGGCTTCCCTGGACCGCTGTGACCATCTCATGGTCTCTTTG
260 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 T H L M G L F
1901 AGCCTGGAGACATGAAATACGAGATCCACCAGACTCCACTGGACCCCTCCCTGATGGAGATGACAGAGGCTGCCCTGCGCTGCTGAGCAGGAACCC
293 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 L R L L S R N P

SacII (2004)

2001 CCGCGCTTCTTCTCTCGTGGAGGGTGTGCATCGACCAGGTATCACGAAAGCAGGGCTTACCGGGCACTGACTGAGACGATCATGTTTCAGCAGC
326 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 T E T I M F D D
2101 GCCATTGAGAGGGGGCCAGCTCACCAGCGAGGAGGACACGCTGAGCCTGTACTGCCAGCACTCCACGTCTTCTCTCGGAGGCTACCCCTGC
360 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 S F G G Y P L
2201 GAGGGAGCTTCATCTCGGGCTGGCCCTGGCAAGGCCGGGACAGGAAGGCCTACACGGTCTCTATACGAAACGGTCCAGGCTATGTCTCAAGGA
393 R G S S I F G L A P G K A R D R K A Y T V L L Y G N G P G Y V L K D
2301 CGGCGCCCGCCGGATGTTACCGAGAGCGAGAGCGGGAGCCCGAGTATCGGCAGCAGTCAAGTGCCTTGGACGAAAGACCCACGAGCGGAGGAC
426 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 E E T H A G E D
2401 GTGGCGGTGTTGCGCGCGGCCCGCAGGGCACCCTGGTTCACGGCGTGCAGGAGCAGACCTTCATAGCGCAGTCAAGGCTTCCGCGCCTGCTGGAGC
460 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 A F A A C L E

NheI (2588)

2501 CCTACACCGCTGCGACCTGGCGCCCCCGCCGCCACCACCAGCGCCGCGCACCAGGGGGTCCCGGTCCAAGCGTCTGGATTGAAGCTAGCTGGCCAG
493 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 L D
2601 ACATGATAAGATACATTGATGAGTTTGACAAACCACAAC TAGAATGCAGTGAATAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTG

MfeI (2737)

2701 AACCATATAAGTGAATAAACAAGTTAAACAACAACATTGCATTATTTATGTTTCAGGTTCCAGGGGAGGTGTGGGAGTTTTTAAAGCAAGTAA
2801 AACCTCTACAAATGTGGTATGAATTAATTCTAAAATACAGCATAGCAAACTTTAACTCCAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGA

2901 ATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTTAAAGATATAGTGTATTTTCCCAAGGTT
3001 TGAAGTACTCTTTCATTTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTTAGTAAAATATTAGAAATAATTTAAATACATCATTGCAATG
3101 AAAATAAATGTTTTTATTAGGCAGAAATCCAGATGCTCAAGGCCCTTCAATATATCCCCAGTTTGTAGTGTGGACTTAGGGAACAAGGAACCTTTAAT
3201 AGAAATTTGACAGCAAGAAAGCGAGCTTCTAGCTTATCCTCAGTCTGCTCTGCCCACAAAGTGCACGAGTTGCCGGCCGGGTGCGCGAGGGCGAAC
125 • D Q E E A V F H V C N G A P D R L A F
3301 TCCCGCCCCACGGTGTCTCGCGATCTCGGTCTATGGCCGGAGCGTCCCGAAAGTTCTGGACACGACCTCCGACCACTCGGCGTACAGCTCGT
104 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 S W E A Y L E D

SgrAI (34)

3401 CCAGGCCGCGCACCCACACCCAGGCCAGGGTGTGTCCGGCACCACCTGGTCTGGACCGCGCTGATGAACAGGGTCAAGTCTGCTCCCGGACCAACCCGGC
71 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 V D D R V V G A
3501 GAAGTCGCTCCACGAAGTCCCGGAGAACCCGAGCCGGTCCGAGTCCAGAACTCGACCGCTCCGGCGACGTCGCGCGGGTGGACCCGGAACGGCACTG
38 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 T L V P V A S

3601 GTCAACTTGGCATGATGGCTCCTCCTGTCAGGAGAGGAAAGAGAAGAAGGTTAGTACAATTGCTATAGTGAGTTGTATTATACTATGCAGATATACTAT  
4 T L K A M ←

3701 GCCAATGATTAATTGTCAACTAGGGCTGCAGGTTAATTAAGAACATGTGAGCAAAAGGCCAGAAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGG  
←

3801 CGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTT  
←

3901 TCCCCCTGGAAGCTCCCTCGTGCGCTCCTGTTCCGACCCTGCCGTTACCGGATACCTGTCCGCCTTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCAT  
←

4001 AGCTCAGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTACAGCCGACCGCTGCGCCTTATCCG  
←

4101 GTAACATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGC  
←

4201 TACAGAGTTCCTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTT  
←

4301 GGTAGCTCTTGATCCGGCAAACAACCCACCGCTGGTAGCGGTGGTTTTTTTGGTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATC  
←

4401 CTTTGATCTTTTCTACGGGTCTGACGCTCAGTGAACGAAAACACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCA  
←