



EcoRI (23)

NotI (2)

XbaI (19)

SdaI (38)

1 GCGGCCGCGTCGACGATATCTAGAATTCGGATCCTGCAGGGCCGCCACTCCCTTCTCTCAGGGTCCCTGTCCCTCCAGTGAATCCAGAAAGACT
101 TGGAGAGTTCGAGCAGGGGGCGCACTCTGGCCTCTGATTGGTCCAAGGAAGGTGGGGGGCAGGACGGGAGGGCAAAAACCTGGAATATTCACGACCT

NheI (296)

201 GGCAGCCTCATCGAGCTCGGTGATTGGCTCAGAAGGAAAAGCGGGTCTCCGTGACGACTTATAAAAGCCAGGGGCAAGCGGTCCGGATAACGGCTAG

SgrAI (393)

301 CTGAGGAGCTGTGCGACAGTCCACTACCTTTTTTCGAGAGTACTCCCGTTGTCCCAAGGCTTCCAGAGCGAACCTGTGCGGCTGACAGGCACCGGGCC

401 GTCGAGTTTCCGGCTCCGGAAGACCGAGCTCTTCTCGCGGATCCAGTGTTCGGTTTCCAGCCCCAATCTCAGAGCGGAGCCGACAGAGAGCAGGGAA

NcoI (503)

501 CCCATGGTCTGGGGCCCTGCATGCTGCTGCTGCTGCTGCTGGGCTGAGGCTACAGCTCTCCCTGGGCATCATCCAGTTGAGGAGGAGAACCCG
601 GACTTCTGGAACCGAGCCGAGCCCTGGTGCACACGACGACGCGCAAGAGCTGCAGCCTGCACAGACAGCCGCAAGAACCTCATCTTCTGGGCGATG
33 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 I I F L G D

NdeI (798)

701 GGATGGGGGTGTCTACGGTGACAGTCCAGGATCCTAAAAGGCGAGAAGAAGGACAAACTGGGGCTGAGATACCCCTGGCTATGGACCGCTTCCATA
66 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 A M D R F P Y
801 TGTGGCTCTGTCCAAGACATAAATGTAGACAAACATGTGCCAGACAGTGGAGCCACAGCCACGGCCTACCTGTGCGGGTCAAGGGCAACTTCCAGACC
99 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 K G N F Q T
901 ATTGGCTTGAGTGCAGCCGCGCTTAACCAAGTGAACAGGACGACGCGCAAGGAGTGCATCTCCGTGATGAATCGGGCCAGAAAGCAGGGAAGTCAG
133 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 K K A G K S
1001 TGGGAGTGGTAACCCACACAGTGCAGCAGCCCTCGCCAGCCGGCACCTACGCCACACGGTGAACCGCAACTGGTACTCGGACCGCGACGTCCTGC
166 V G V V T T T R V Q H A S P A G T Y A H T V N R N W Y S D A D V P A
1101 CTCGGCCCGCAGGAGGGTCCAGGACATCGTACGACGCTCATCTCCAACATGGACATTGATGTGATCTGGTGGAGGCCGAAAGTACATGTTTCGC
199 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 R K Y M F R
1201 ATGGGAACCCAGACCTGAGTACCCAGATGACTACAGCAAGTGGGACGAGCTGGACGGGAAGAATCTGGTGCAGGAATGGCTGGCAAGCGCCAGG
233 M G T P D P E Y P D D Y S Q G G T Y R L D G K N L V Q E W L A K R Q
1301 GTGCCCGGTATGTGGAACCGCACTGAGCTCATGACGCTTCCCTGGACCCGTCTGTGACCCATCTATGGGTCTTTGAGCCTGGAGACATGAAATA
266 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 E P G D M K Y

SacII (1485)

1401 CGAGATCCACCGAGACTCCACACTGGACCCCTCCCTGATGGAGATGACAGAGGCTGCCCTGCGCTGCTGAGCAGGAACCCCGCGCTTCTTCTCTT
299 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 R G F F L F
1501 GTGGAGGGTGGTCATCCAGCAGGTCATCAGAAAGAGGGCTTACCGGACTGACTGAGACGATCATGTTCCAGCAGCCATTGAGAGGGCGGGCC
333 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 A I E R A G
1601 AGTCCACAGCGAGGAGGACCGTGCAGCCTGCTACTGCCAGCACCCTCCAGCTTCTCTTCCGAGGCTACCCCTGCGAGGGAGCTCCATCTTCGG
366 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 R G S I F G
1701 GCTGGCCCTGGCAAGGCCCGGAGGAGGAGGCTACACGGTCCCTTATACGGAAACGGTCCAGGCTATGTGCTCAAGGACCGCCCGCCGGCGATGTT
399 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 G A R P D V
1801 ACCGAGAGCGAGAGCGGGAGCCCGAGTATCGGCAGCAGTCAAGTCCCTGGACGAGAGACCCACGAGCGAGGACGTTGGCGGTGTTTCGCGCGG
433 T E S E S G S P E Y R Q S A V P L D E E T H A G E D W L A K R Q
1901 GCGCGAGCGCACTGGTTCACGGCGTGCAGGAGCAGACCTTATAGCGACGCTATGGCCTTCCCGCTGCTGGAGCCCTACACCGCTGCGACCT
466 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 P Y T A C D L

NheI (2069)

2001 GCGCCCCCGCCGACCACCGACCGCCGCGCACCAGGGCGGTCCCGTCCAAGCGTCTGGATTGAAGCTAGCTGGCCAGACATGATAAGATACATTGA
499 A P P A G T T D A A H P G R S R S K R L D
2101 TGAGTTTGGACAAACCACTAGAATGCAGTGAAGAAATGCTTTATTTGTGAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCAAT

MfeI (2218)

2201 AAACAAGTTAAACAACAATTGCATTTATGTTTCAGGTTCCAGGGGAGGTGGGAGGTTTTTAAAGCAAGTAAAACCTCTACAATGTGGTA

2301 TGGAAATTAATCTAAATAACAGCATAGCAAAACTTAACTTCAAAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGG

2401 GGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTAAGATATAGTGTATTTTCCCAAGTTTGAAGTACTTTCATTTT
2501 TTTATGTTTTAAATGCACTGACCTCCACATTCCTTTTATGATAAATATTAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTATT
2601 AGGCAGAAATCCAGATGCTCAAGCCCTTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAGGAACCTTTAATAGAAATGGACAGCAAGAA
2701 AGCGAGCTTCTAGCTTATCTCAGTCTGCTCCTCTGCCACAAAGTGCAGCAGTTGCCGGCCGGTTCGCGCAGGGCGAACTCCCGCCCGCAGGCTGCT

1254 • D Q E E A V F H V C N G A P D R L A F E R G W P Q E

2801 CGCCGATCTCGGTGATGGCCGCGCGAGGCGTCCCGAAGTTCGTGGACACGCTCCGACCACTCGCGGTACAGCTCGTCCAGGCGCGCACCCACAC
984 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 L G R V W V

SgrAI (2976)

2901 CCAGGCCAGGGTGTGTCCGCGCACCTGCTGACCGCGTGTGAACAGGGTCACTGCTGCCCGGACACACCGGCGAAGTCTGCTCCACGAAG
654 W A L T N D P V V Q D Q V A S I F L C T G V D D R V V G A F D E V F
3001 TCCCGGGAGAACCCGAGCCGTCGTCAGAACTCGACCCGCTCCGGCAGCTGCGCGGTTGAGCACCGGAACGGCACTGGTCAACTTTGGCCATGATGG
314 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 T L K A M

MfeI (3139)

3101 CTCTCTGTGAGGAGGAAAGAGAAGGTTAGTACAATGCTATAGTGTATTATACTATGAGATATACTATGCCAATGATTAATTGTCAA

3201 ACTAGGGCTCGAGTTAATTAAGAACATGTGAGCAAAAGCCAGCAAAAGCCAGGAACCGTAAAAGGCCGCTTGTGGCGTTTTTCCATAGGCTCCG

3301 CCCCCGACGAGCATCAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAGATACCAGCGTTTTCCCTGGAAGCTCCCTC

3401 GTGCGTCTCTGTTCCGACCTGCCGTTACCGGATACCTGTCCGCTTTCTCCTTCCGGAAGCGTGGCGCTTCTCATAGCTCACGCTGTAGGTATC

3501 TCAGTTCGGTGTAGGTCGTTGCTGCAAGTGGGCTGTGTGCACGAACCCCGTTACGCGCAGCGCTGCGCTTATCCGGTAACATATCGTCTTGAGTC

3601 CAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGG

3701 TGGCCTAACTACGGCTACACTAGAAGAAGTATTTGGTATCTGCGCTCTGTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCA

3801 AACAAACCCGCTGGTAGCGGTGTTTTTTTTGTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTACGGG

3901 GTCTGACGCTCAGTGAACGAAAACCTACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCA