



EcoRI (19)

NotI (2) **XbaI (15)** **SdaI (29)** **SpeI (36)**

1 GCGGCCGCTATGCATCTAGAATTCCTGCAGGGCCCACTAGTTTTCATCACCACCGCCACCCCCCGCCCCCGCCA
77 TCTGAAAGGGTTCTAGGGGATTTGCAACCTCTCTCGTGTGTTTCTTCTTTCCGAGAAGCGCCGACACGAGAAAG
153 CTGGCCGCGAAAGTCGTGCTGGAATCACTTCCAACGAAACCCAGGCATAGATGGGAAAGGGTGAAGAACACGTTG

NcoI (229)

229 CCATGGCTACCGTTTCCCCGGTCACGGAATAAACGCTCTCTAGGATCCGGAAGTAGTTCGCCGCGACCTCTCTAA
305 AAGGATGGATGTGTTCTCTGCTTACATTATTGGACGTTTTCCCTTAGAGGCCAAGGCCGCCAGGCAAAGGGGCG
381 GTCCACGCGTGAGGGGCCGCGGAGCCATTTGATTGGAGAAAAGCTGCAAACCTGACCAATCGGAAGGAGCCAC
457 GCTTCGGGCATCGGTCACCGCACCTGGACAGCTCCGATTGGTGGACTTCCGCCCCCTCACGAATCCTCATTGGG
533 TGCCGTGGGTGCGTGGTGC GGCGCGATTGGTGGGTTTCATGTTTCCCGTCCCCCGCCGCGAGAAGTGGGGGTGAAA
609 AGCGGCCCGACCTGCTTGGGGTGTAGTGGGCGGACCGCGCGGCTGGAGGTGTGAGGATCCGAACCCAGGGGTGGGG

BspHI (737)

685 GGTGGAGGCGGCTCCTGCGATCGAAGGGGACTTGAGACTCACCGGCCGACGTCATGATTCTGGGGCCTGCATGC
761 TGCTGCTGCTGCTGCTGCTGGGCTGAGGCTACAGCTCTCCCTGGGCATCATCCAGTTGAGGAGGAGAACCCGGA
837 CTTCTGGAACCGCGAGGCAGCCGAGGCCCTGGGTGCCGCAAGAAGCTGCAGCCTGCACAGACAGCCGCCAAGAAC
913 CTCATCATCTTCTGGGCGATGGGATGGGGGTGTCTACGGTGACAGCTGCCAGGATCCTAAAAGGGCAGAAGAAG
59▶ 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

NdeI (1032)

989 ACAAACTGGGGCCTGAGATACCCCTGGCTATGGACCGCTTCCCATATGTGGCTCTGTCCAAGACATACAATGTAGA
1065 CAAACATGTGCCAGACAGTGGAGCCACAGCCACGGCCTACCTGTGCGGGGTCAAGGGCAACTTCCAGACCATTGGC
1141 TTGAGTGCAGCCGCCGCTTTAACCAGTGCAACACGACACGCGGCAACGAGGTGATCTCCGTGATGAATCGGGCCA
1217 AGAAAGCAGGGAAGTCAGTGGGAGTGGTAACCACCACACGAGTGCAGCACGCCTCGCCAGCCGGCACCTACGCCCA
1369 ACGCAGCTCATCTCCAACATGGACATTGATGTGATCCTGGGTGGAGGCCGAAAGTACATGTTTCGCATGGGAACCC
1445 CAGACCCTGAGTACCCAGATGACTACAGCCAAGGTGGGACCAGGCTGGACGGGAAGAATCTGGTGCAGGAATGGCT
1521 GGCGAAGCGCCAGGGTGCCCGGTATGTGTGGAACCGCACTGAGCTCATGCAGGCTTCCCTGGACCCGTCTGTGACC
1597 CATCTCATGGGTCTCTTTGAGCCTGGAGACATGAAATACGAGATCCACCGAGACTCCACACTGGACCCCTCCCTGA
1673 TGGAGATGACAGAGGCTGCCCTGCGCCTGCTGAGCAGGAACCCCCGCGGCTTCTTCTCTTCTGTTGGAGGGTGGTGC
1749 CATCGACCACGGTCATCACGAAAGCAGGGCTTACCGGGCACTGACTGAGACGATCATGTTTCGACGACGCCATTGAG
1825 AGGGCGGGCCAGCTCACCAGCGAGGAGGACACGCTGAGCCTCGTCACTGCCGACCACTCCACGCTTCTCTCTTCG
1901 GAGGCTACCCCTGCGAGGGAGCTCCATCTTCCGGCTGGCCCCTGGCAAGGCCCGGACAGGAAGGCCCTACACGGT
1977 CCTCCTATACGAAACGGTCCAGGCTATGTGCTCAAGGACGGCGCCCGGGATGTTACCGAGAGCGAGAGCGGG
2053 AGCCCCGAGTATCGGCAGCAGTCAGCAGTGGCCCTGGACGAAGAGACCCACGAGGCGAGGACGTGGCGGTGTTTCG
2129 CGCGCGCCCGCAGGCGCACCTGGTTCACGGCGTGCAGGAGCAGACCTTCATAGCGCACGTCATGGCCTTCGCCCG
464▶ 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

2205 CTGCCTGGAGCCCTACACGCTGCGACCTGGCGCCCCCGCCGGCACCACCGACGCCGCGCACCCGGGGCGGTCC
489▶ 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

NheI (2303)

2281 CGGTCCAAGCGTCTGGATTGAAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTTGACAAACCACAAC
515▶ R S K R L D •

2357 AGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATAAGCTGCA

2433 ATAAACAAGTTAAACAACAACAATTGCATTCATTTTATGTTTCAGGTTTCAGGGGGAGGTGTGGGAGGTTTTTTAAAG

2509 CAAGTAAAACCTCTACAAATGTGGTATGGAATTAATTCTAAAATACAGCATAGCAAAACTTTAACCTCCAATCAA

2585 GCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCCAATGTGCATTAGCTGT
2661 TTGCAGCCTCACCTTCTTTCATGGAGTTTAAGATATAGTGATTTTTCCCAAGGTTTGAAGTACTGCTCTTCATTTCTT
2737 TATGTTTTAAATGCACTGACCTCCACATTCCCTTTTTAGTAAAATATTCAGAAATAATTTAAATACATCATTGCA
2813 ATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGATGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTG
2889 GACTTAGGGAACAAAGGAACCTTTAATAGAAATTGGACAGCAAGAAAGCGAGCTTCTAGCTTATCCTCAGTCCTGC
125▶ • D Q

2965 TCCTCTGCCACAAAGTGCACGCAGTTGCCGGCCGGGTGCGCGAGGGCGAACTCCCGCCCCACGGCTGCTCGCCGA
121▶ E E A V F H V C N G A P D R L A F E R G W P Q E G I

3041 TCTCGGTCATGGCCGGCCGGAGGCGTCCCGGAAGTTCGTGGACACGACCTCCGACCACTCGGCGTACAGCTCGTC
96▶ 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

3117 CAGGCCGCGCACCCACACCCAGGCCAGGGTGTGTCCGGCACCACCTGGTCTGGACCGCGCTGATGAACAGGGTC
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

SgrAI (3210)

3193 ACGTCGTCCCGGACCACACCGGCGAAGTCGTCCTCCACGAAGTCCCGGGAGAACCCGAGCCGGTCCGTCCAGAACT
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

3269 CGACCGCTCCGGCGACGTCGCGCGCGGTGAGCACCAGGACGGCACTGGTCAACTTGCCATGATGGCTCCTCCTGT
20▶ V A G A V D R A T L V P V A S T L K A M ◀

3345 CAGGAGAGGAAAGAGAAGAAGGTTAGTACAATTGCTATAGTGAGTTGTATTATACTATGCAGATATACTATGCCAA

3421 TGATTAATTGTCAAAGCTAGGGCTGCAGGTTAATTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGT

3497 AAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTC

3573 AGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTTCCCCTGGAAGCTCCCTCGTGCGCTCTCCTGT

3649 TCCGACCCTGCCGCTTACCGGATACCTGTCCGCTTTCTCCCTTCGGAAGCGTGGCGTTTTCTCATAGCTCACGC

3725 TGTAGGTATCTCAGTTCGGTGTAGGTCGTTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCGTTACAGCCGACC

3801 GCTGCGCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGTAAGACACGACTTATCGCCACTGGCAGCAGCCAC

3877 TGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTAC

3953 ACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGAT

4029 CCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATC

4105 TCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTC

4181 ATGGCTAGTTAATTAACATTTAAATCA