



EcoRI (23)

NotI (2) XbaI (19) SdaI (38) SpeI (45)

1 CCGCGCCGCTCGACGATATCTAGAAATTCGGATCCTGCAGGGCCCACTAGTTCGCCAACTTCCCGCCTCTCAGCCTTTGAAAGAAGAAAGGGGAGGGGG

NruI (117)

101 CAGGCCGCTGCAGTCGCGAGCGGTGCTGGGCTCCGGCTCCAATTCATCTCAGTCGCTCCCAAAGTCTTCTGTTTCATCCAAGCGTGAAGGTTC

201 CCGTCCTTGACTCCCTAGTGTCTGCTGCCACAGTCCAGTCTGGGAACAGCACCAGTACCTCCCATCGGGCCAATCTCAGTCCCTTCCCCCTACG

301 TCGGGGCCACACGCTCGGTGCTGCCAGTTGAACAGGGCGGTGCGGAAAAAAGCGGGGAGAAAGTAGGGCCCGCTACTAGCGGTTTTACGGG

401 CGCACGTAGCTCAGGCCCTCAAGACCTTGGGCTGGGACTGGCTGAGCCTGCGGGAGGCGGGTCCGAGTACCCTGCGCCCGCCCGCCCGTTTCTAT

501 AAATTGAGCCCGACGCTCCCGCTTCTGCTCTGCTCTCTGTTTCGACAGTACGCCGATCTTCTTTTTCGCTCGCCAGgtgaagacgggaggagagaaa

SfiI (674)

601 cccgggaggctagggagcggcctgaaggcggcagggcgggcgaggccggatgtgttcgcgccgctgccccgggcccggcgccctccgattgcagg

701 ggcgggaggagcgtgatgccccgggctgggcatggaggcctggtgggggaggggagggagggcggtgggtgctggccggggccactagggcgtcact

NeoI (841)

801 gttctctccctccgcgagCCGAGCCACATCGCTGAGACACCATGGTCTGGGGCCCTGCATGCTGCTGCTGCTGCTGCTGGCCCTGAGGCTACAGC

901 TCTCCTGGGATCATCCAGTTGAGGAGGAGAACCCGGACTTCTGGAACCGCAGGAGCCGAGGCCCTGGTGCCGCAAGAAGTGCAGCCTGCACA

1001 GACAGCCGCAAGAACCCTCATCTTCTGGGCGATGGGATGGGGTGTCTACGGTACAGCTGCCAGGATCCTAAAAGGCGAGAAGGACAAACTG

1101 GGGCCTGAGATACCCTGGTATGGACCGCTTCCCATATGTGGCTCTGCAAGACATAAATGTAGACAAACATGTGCCAGACAGTGGAGCCACAGCCA

1201 CGGCTACCTGTGCGGGGTCAAGGGCAACTCCAGACATTGGCTTGTAGTGCAGCCGCCGCTTTAACAGTGAACACGACACGCGCAACGAGGTCAT

1301 CTCCGTGATGAATCGGGCAAGAAGCAGGAAGTCACTGGGAGTGGTAACACACAGTGCAGCACGCTGCCAGCCGGCACCTACGCCACAC

1401 GTGAACCGCAACTGGTACTCGGACCGCAGCTGCCTGCCTCGGCCCGCAGGAGGGTGCAGGACATCGTACGAGCTCATCTCAACATGGACATTG

1501 ATGTGATCCTGGGTGAGGCGCAAGTACATGTTTCGCATGGGAACCCAGACCTGAGTACCAGATGACTACAGCCAAGTGGGACCGAGGTGGACGG

1601 GAAGAATCTGGTGCAGGAATGGCTGGCAAGCGCCAGGGTGCCTGATPTDPEYPPDDYD 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 D S Q G G T R L D G

1701 CATCTCATGGGTCTCTTTGAGCCTGGAGACATGAAATACGAGATCCACCAGACTCCACTGGACCCCTCCTGATGGAGATGACAGAGGCTGCCCTGC

1801 GCGTCTGAGCAGGAACCCCGGCTTCTTCTCTTCTGAGGGTGGTGCATCGACCAGGTCATCACGAAAGCAGGGCTTACCGGGCACTGACTGA

1901 GACGATCATGTTGACGACGCCATTGAGAGGGCGGGCAGCTCACCAGCAGGAGGACACGCTGAGCCTCGTCACTGCCGACACTCCACGCTTCTTCC

2001 TTCGGAGCTACCCCTGCGAGGAGCTCCATCTTCCGGTGGCCCTTGCAAGGCCCGGACAGGAAGGCTACACGGTCTCCTATACGGAACGGTC

2101 CAGGCTATGTCTCAAGGACGCGCCCGCGGATGTACCAGAGCAGAGCGGGAGCCCGAGTATCGGCAGCAGTCAAGGACGAGTCCGCGGACGA

2201 GACCCAGCAGGCGAGGACGTTGCGCGCGCCCGCAGGCGCACTGTTTACGGCGTGCAGGAGCAGACCTTCATAGCCAGCTCATGGCC

2301 TTCGCGCCTGCTGGAGCCATCACCGCTGCGACCTGGCCGCCCGCCCGGACACCAGCAGCCGCGCACCCGGGGCGTCCCGTCAAGCGTGTGG

2401 ATTGAAAGCTAGCTGGCCAGACATGATAAGATACATTGATGAGTTGGACAAACCACAACCTAGAAATGCAAGTGAAGGAAATGCTTTATTTGTAAATTTGTG

SacII (1823)

320 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 T E

353 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 S

387 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 V L L Y G N G

420 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 E E

453 T H A G E V F A R G P A C H L L V H G V Q E Q T F I A H V M A

487 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 L

NheI (2407)

520 D •

MfeI (2556)

2501 ATGCTATTGCTTTATTTGTAACCATTATAAGTGAATAAACAAGTTAAACAACAACATTCATTATTTATGTTTCAGGTTACGGGGAGGTGGGA

2601 GGTTTTTAAAGCAAGTAAAACCTTACAATGTGGTATGGAATTAATTCTAAAATACAGCATAGCAAACTTTAACCTCAAATCAAGCCTCACTTGA

2701 ATCCTTTTCTGAGGGATGAATAAGGCATAGGCATCAGGGGCTGTTGCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTCATGGAGTTAAGATAT

2801 AGTGTATTTTCCAAGTTTGAAGTCTTTCATTTCTTTATGTTTAAATGCACTGACCTCCACATTCCTTTTAGTAAAATATTGAGAAATAATT

2901 TAAATACATCATTGCAATGAAAATAAATGTTTTTATTAGGAGAAATCCAGATGCTCAAGGCCCTTCAATATCCCCAGTTTAGTGTGACTTAGG

3001 GAACAAGGAACCTTTAATAGAAATGGACAGCAAGAAAGCGAGCTTCTAGCTTATCCTCAGTCTGCTCCTGCCACAAAGTGACCGCAGTTGCCGGC

3101 CCGGTGCGCAGGGCGAACTCCCGCCCCAGGCTGCTCGCCGATCTCGGTATGGCCGGCCGGAGCGTCCCGGAAGTTCGTGGACAGACCTCCGAC

3201 CACTCGGCTACAGCTCGTCCAGGCGCGCACCCACACCCAGGCCAGGGTGTGTCGGCACCACCTGGTCTGGACCGCGTGTGAAACAGGGTCACTG

3301 CGTCCCGGACACACCGCGAAGTCTCTCCACGAAGTCCCGGAGAACCCGAGCCGCTCGGTCCAGAACTCGACCGCTCCGGCGCAGCTCGCGCGCGT

3401 GAGACCGGAACCGCACTGCTCAACTTGGCCATGATGGCTCCTCTGTGAGAGAGAAAGAGAAGGTTAGTACAATTGCTATAGTGTGATTATA

MfeI (3477)

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

3501 TACTATGCAGATATACTATGCCAATGATTAATTGTCAA  ACTAGGGCTGCAGGTTAATTAAGAACATGTGAGCAAAAGGCCAGCAAAGGCCAGGAACCGT

3601 AAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGAC

3701 TATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCCTCTCTGTTCCGACCCTGCCGCTTACCGGATACCTGTCCGCTTTCTCCCTTCGGG

3801 AAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTCCGCTCAAGCTGGGCTGTGTGCACGAACCCCGTTCCAGCCC

3901 GACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAG

4001 CGAGGTATGTAGGCGGTGCTACAGAGTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGT

4101 TACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTGTGCAAGCAGCAGATTACGCGCAGAAAA

4201 AAAGGATCTCAAGAAGATCCTTTGATCTTTCTACGGGGTCTGACGCTCAGTGGAACGAAACTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAA

4301 CATTAAATCA