



**EcoRI (23)**

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

1 **C**GGGCCGGCTGACGATATCTAGAAATTCGGATCCTGCAGGGCCACTAGTGCCATAGATCGAGGCCCGGGTCAAGGCCCGCCTCTCTGGGCGGGCC

101 TGCCAGGCGGGCCAGCGCTCTCCCCGACTCCCGTTCGCTCTACGGTCCCTGAGGTGGCGGGCGGGCCCTGGATGACAGCGATAGAAGCCCG

201 GCGGACTCGCCTCGCCCCGCTCTGGGTCTGGGTTCCCCAGCCTAGTTCACGCTAGGAGCGCCTGAGCAGCCGGCGCCAGCGCCACAGCCAC

**Eco47III (338)**

301 GAGCCCTCCCCGCTGGGCTCCCGGATCCCGGAGCGCTCGGCTCCCGGCTTGAACCAGGGAGGAGGGAGGGAGCGAGGGAGCAACCAGCTGCGAC

401 CCGAAATGCCATATAAGGAGCAGGAAGGATCCCCGCCGAACAACCCTTATTTGGGAGCAGACCTTATTTGGAGTGGCCGATATGGCCCGGCGCTT

**BspEI (548)**

501 CGGCTCTGGGAGGGAAGAAGCGGAGGGGCAACCGGGAACTCCGGAGCTGCGGGTCCCGAGGCCCGGGCGGCTAGAGCTCTAGGCT

601 TCCCCAAGCCTGGGCGCTGGGATGGGGCGGGCGGGCCCTAGGGTCAGGATGGAGTGCCGGCGCTGTCCGATGGGGGCTTACGTCACTC

701 CGGGTCTCCCGCCGTCTGCCATATTAGGGCTTCTGCTCCATATATGGCCATGTACGTACGACGAGGGGACCCGTCCGTTCCAGACCTT

**NruI (826)**

801 CAAATAGAGCGGATCGGGGAGTCGGAGAGATCCAGCGCGAGAACTGGGAGCGCCGCCATCCGCCGCCAGCCAGCTTCCGCCCGCGCA

**SacII (932)**

901 GGACCGCCCTGCCAGCCTCCGCAGCCGGCGCGTCCACGCCCGCCCGGCCAGGGCGAGTCCGGTTCGCCCTGCAGCTTCTAGTGTTCCC

1001 CGGCCCCGCATGTAACCCGGCAGGCCCCGCAACTGTGTCCCTGCAGTCCAGCCCGGGTGCACCCCCGCCCGACACCAGCTTCCAGCCTG

**NeoS (1109)**

1101 CTCGTCCA**c**ATGGTTCTGGGCCCTGCATGCTGCTGCTGCTGCTGCTGCTGCTGGCCCTGAGCTACAGCTCTCCCTGGGCATCATCCAGTTGAGGAGAG

1201 AACCCGACTTCTGGAACCGGAGCAGCGGAGCCCTGGTGCAGGCTGGTGCAGCAGGAGGCTGCAGCAGCAGCCGCAAGAACCTCATCTTCTGG

1301 GCGATGGGATGGGGTGTCTACGGTGACAGCTGCCAGGATCTAAAGGGCAGAAGAAGGACAACTGGGGCTGAGATACCCTGGCTATGGACCGCTT

1401 NCCATATGTGGCTGTCCAAGACATACAATGTAGACAAACATGTGCCAGACAGTGAGCCACAGCCACGGCCTACCTGTGCGGGTCAAGGGCAACTTC

1501 CAGACCATTGGCTTGAGTGACCCCGCTTTAACAGTGAACACGACACCGGCCAACGAGGTCATCTCCGTGATGAATCGGGCAAGAAAGCAGGGA

1601 AGTCAGTGGGAGTGGTAACCACACACAGGTGCAGCAGCCTCGCAGCCCGCACCACACGGTGAACCGCAACTGGTACTCGGACCCGACGT

1701 CGCTGCCCTCGGCCGCCAGGAGGGTGCAGACATCGTACGAGCTCATCTCCAACTGGACATTGATGTATCGGGTGGAGGCCAGGACATG

1801 TTTCCGATGGAAACCCAGACCCTGAGTACCCAGATGACTACAGCCAAGTGGGACAGGCTGGAGCGGAAGAATCTGGTGACGAATGGCTGGCGAAGC

1901 GCCAGGTGCCGGTGTGTTGGAACCGCACTGAGCTCATGACGCTTCCCTGGACCCCTGTGACCCATTCATGGGTCTTTTGGCCCTGAGACAT

2001 GAAATACGAGATCCACCGACTCCACTGGACCCTCCCTGATGGAGATGACAGAGGCTGCCCTGCGCCTGCTGAGCAGGAACCCCGCGGCTTCTTC

2101 CTCTTCGTGGAGGTTGGTGCATCGACCAGCTCACGAAAGCAGGGCTTACCGGGCAGCTGACTGAGACGATCATGTTGCAGCAGCCATTGAGAGGG

2201 CGGCGACTCACCAGCAGGAGGACAGCTGAGCCTCGTCACTCCGACACTCCACGCTTTCTCTTCCGGAGGTACCCCTGCAGGGAGCTCCAT

2301 CTTCCGGCTGGCCCTGGCAAGGCCGGCAGGAAGGCTACACGGTCCCTTACGGAACCGTCCAGGCTATGTGCTAAGGACGGCGCCCGGCCG

2401 GATGTTACCAGAGCAGAGCGGGAGCCCGAGTATCGGCAGCAGTCAGCAGTGCCTGGACGAAGAGACCACCGCAGGCGAGGACGTGGCGGTGTTCCG

2501 CGCGCGCCCGCAGGCGCACCTGGTTCACGGCTGCAGGAGCAGACTTCATAGCGACGTCATGGCTTCGCCCTGCCCTGGAGCCCTACCCCGCCTG

2601 CGACTGGCGCCCGCCGGCACCACCGACGCCGCACCCGGGGCGTCCGGTCCAAGCGTCTGGATTGA**AGCTAGCTGGCCAGACATGATAAGATA**

2701 CATTGATGAGTTGGACAAACCACTAGAATGCAGTGAACAAAATGCTTTATTGTGAAATTTGTGATGCTATTGCTTTATTGTAACCATTATAAGC

**MfeI (2824)**

2801 TGCAATAACAAGTTAAACAACAATTCATTCTTTATGTTTCAGGTTCAAGGGAGGTGTGGGAGTTTTTTAAAGCAAGTAAACCTCTACAAAT

2901 GTGGTATGG**A**ATTAATTCTAAAATACAGCATAGCAAACTTTAACCTCCAATCAAGCCTTACTTGAACTTTTCTGAGGGATGAATAAGGCATAGGC

3001 ATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTCTTTTCATGGAGTTAAGATATAGTGTATTTCCCAAGGTTTGAACCTAGCTCTT

3101 CATTTCTTTATGTTTTAAATGCAGTCACTCCACATTCCCTTTTGTGAAAATATTGAAAATAATTAAATCATCTTGAATGAAAATAATGTTT

3201 TTTATTAGGCAGAAATCCAGATGCTCAAGGCCCTTATAATATCCCCAGTTTGTAGTTGGACTTAGGAAACAAAGAACCTTTAATAGAAATTGGACAG

3301 CAAGAAAGCGAGCTTCTAGCTTATCCTCAGTCCTGCTCCTCTGCCACAAAGTGCACGCAGTTGCCGGCCGGGTGCGCGAGGGCGAACTCCCGCCCCACG  
125 •••AspGlnGluAlaValPheHisValCysAsnGlyAlaProAspArgLeuAlaPheGluArgGlyTrpP  
3401 GCTGCTCGCCGATCTCGGTTCATGGCCGGCCGGAGGCGTCCCGAAAGTTCTGTGGACACGACCTCCGACCCTCGGGCTACAGCTCGTCCAGGCCGCGCAC  
100 oGlnGluGlyIleGluThrMetAlaProGlySerAlaAspArgPheAsnThrSerValValGluSerTrpGluAlaTyrLeuGluAspLeuGlyArgVal  
SgrAI (3582)  
3501 CCACACCCAGGCCAGGGTGTGTCCGGCACCACCTGGTCCTGGACCGCGCTGATGAACAGGGTCACGTCGTCCCGACCACACCGGCGAAGTCGTCTCC  
67 TrpValTrpAlaLeuThrAsnAspProValValGlnAspGlnValAlaSerIlePheLeuThrValAspAspArgValValGlyAlaPheAspAspGluV  
3601 ACGAAGTCCCGGAGAACCCGAGCCGGTCCGAGAACTCGACCGCTCCGGCGACGTCGCGCGCGGTGAGCACCGAACCAGCACTGGTCAACTTGCCCA  
33 alPheAspArgSerPheGlyLeuArgAspThrTrpPheGluValAlaGlyAlaValAspArgAlaThrLeuValProValAlaSerThrLeuLysAlaMe  
MfeI (3745)  
3701 TGATGGCTCCTCCTGTCAGGAGAGGAAAGAGAAGAAGGTTAGTACAATTGCTATAGTGAGTTGTATTATACTATGCAGATATACTATGCCAATGATTAAT  
0 t  
3801 TGTCAAACTAGGGCTGCAGGTTAATTAAGAACATGTGAGCAAAGGCCAGCAAAGGCCAGGAACCGTAAAAAGGCCGCTTGCTGGCGTTTTTCCATAG  
3901 GCTCCGCCCCCTGACGAGCATCACA AAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGC  
4001 TCCCTCGTGCCTCTCCTGTTCGACCCTGCCGTTACCGGATACCTGTCCGCCTTCTCCCTTCGGGAAGCGTGGCGCTTCTCATAGCTCAGCTGTA  
4101 GGTATCTCAGTTCGGTGTAGGTCGTTTCGTCCTCAAGCTGGGCTGTGTGCACGAACCCCGTTAGCCCGACCGCTGCGCCTTATCCGGTAACATATCGTCT  
4201 TGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGATGTAGGCGGTGCTACAGAGTTCTTG  
4301 AAGTGGTGGCCTAACTACGGCTACACTAGAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGAT  
4401 CCGGCAAACAACACCAGCTGGTAGCGGTGTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTC  
4501 TACGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTCATGGCTAGTTAATTAACATTTAAATCA