



EcoRI (23)

NotI (2)

XbaI (19)

SdaI (38)

1 GCGGCCGCGTCGACGATATCTAGAATTCGGATCCTGCAGGATCCGCTGGATGCAACTCAGCTGGGGTCAGCTCA

75 GTCGACTTGGGTTAACTGAGTGCCGCCTTGTCTGTCTTTGAATATCAGATAAATGAGTTGACTTAAAAATTTG

149 TTCATTTGTACTTTTCATGTCACCTGTGCTTTTCCCTGCCTTCTACCCACAGCCCTGCCAGCTGGCAGGAGGAA

223 GGTCAGCAGAGCTGCTGATAAGAGCCGTATAAAGAGGGTCCGCTCATGGCAAGGGGCAGTGGTCTACTCTCTC

NcoI (301)

297 CACACCATGGAAATCAAGGTGCTGTTTGCCTCATCTGTATTGCTGTTGCTGAGGCAAAACCCACTGAAATCAA

1 MetGI uI l eLysVal l eLeuPheAl aLeuI l eCysI l eAl aValAl aGl uAl aLysP roThr Gl uI l eAs

BglII (416)

371 TGAAGACCTCAATATAGCTGCTGTGGCCTCCAACCTTTGCCACCACAGATCTTGAGACTGACCTGTTCAACCACT

23 nGI uAspLeuAsnI l eAl aAl aValAl aSerAsnPheAl aThr ThrAspLeuGl uThrAspLeuPheThrAsnT

445 GGGAGACCATGAATGTGATTAGCACTGACACAGAGCAGGTGAACACAGATGCTGACAGGGGCAAGCTGCCTGGC

48 r pGI uThr MetAsnVal I l eSer ThrAspThr Gl uGl nValAsnThrAspAl aAspArgGl yLysLeuP roGl y

519 AAAAACTCCCCCAGATGCTCTGAGGGAGCTGGAGGCCAATGCCAGAAGGGCTGGTTGCACAAGAGGCTGCCT

73 LysLysLeuP roP roAspVal l eLeuArgGl uLeuGl uAl aAsnAl aArgArgAl aGl yCysThrArgGl yCysLe

593 CATTTCCTCTCCACATTAAGTGCACCCCTAAGATGAAGAAATTTATCCCTGGCAGGTGCCACACTTATGAAG

97 uI l eCysLeuSer Hi s I l eLysCysThr P roLysMetLysLysPheI l eP roGl yArgCysHi s Thr TyrGl uG

667 GTGAAAAGGAGTCTGCTCAGGGAGGGATTGGAGAGGCAATTGTTGATATCCAGAGATTCTGGCTTCAAGGAT

122 l yGl uLysGl uSerAl aGl nGl yGl y I l eGl yGl uAl aI l eValAspI l eP roGl uI l eP roGl yPheLysAsp

741 AAGGAGCCACTGGACCAGTTTATTGCTCAAGTGGACCTCTGTGCTGATTGCACCACTGGCTGTCTGAAGGGCCT

147 LysGl uP roLeuAspGl nPheI l eAl aGl nValAspLeuCysAl aAspCysThr Thr Gl yCysLeuLysGl yLe

815 TGCCAATGTCCAGTGTCTGACCTCTGAAGAAGTGGCTTCCCAGAGGTGTACCACTTTTGCAGCAAGATTC

171 uAl aAsnVal Gl nCysSerAspLeuLeuLysLysT rpLeuP roGl nArgCysThr Thr PheAl aSer LysI l eG

NheI (935)

889 AGGGTAGGGTGGACAAAATCAAGGGTCTGGCTGGGGACAGATGATAGCTAGCTGGCCAGACATGATAAGATACA

196 l nGl yArgValAspLysI l eLysGl yLeuAl aGl yAspArg

963 TTGATGAGTTTGGACAAACCACAACCTAGAATGCAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATT

1037 GCTTTATTTGTAACCATTATAAGCTGCAATAAACAAGTTAACAACAACAATTGCATTCATTTTATGTTTCAGGT

1111 TCAGGGGGAGGTGTGGGAGGTTTTTTAAAGCAAGTAAAACCTCTACAAATGTGGTATGGAATTAATTTCTAAAAT

1185 ACAGCATAGCAAAACTTTAACCTCCAATCAAGCCTCTACTTGAATCCTTTTCTGAGGGATGAATAAGGCATAG

1259 GCATCAGGGGCTGTTGCCAATGTGCATTAGCTGTTTGCAGCCTCACCTTCTTTTCATGGAGTTTAAGATATAGTG

1333 TATTTTCCAAGGTTTGAAGTACTAGCTCTTCATTTCTTTATGTTTTAAATGCACTGACCTCCACATTCCCTTTTT

SspI (1414)

1407 AGTAAAATATTCAGAAATAATTTAAATACATCATTGCAATGAAAATAAATGTTTTTTATTAGGCAGAATCCAGA

1481 TGCTCAAGGCCCTTCATAATATCCCCAGTTTAGTAGTTGGACTTAGGGAACAAAGGAACCTTTAATAGAAAT

1555 GGACAGCAAGAAAGCGAGCTTCTAGCTTATCCTCAGTCCTGCTCCTCTGCCACAAAGTGCACGCAGTTGCCGGC

125 AspGI nGI uGI uAl aVal PheHi sVal CysAsnGI yAl a

1629 CGGGTCGCGCAGGGCGAACTCCCGCCCCACGGCTGCTCGCCGATCTCGGTTCATGGCCGGCCCGGAGGCGTCCC

111 P roAspArgLeuAl aPheGl uArgGl yTrpP roGl nGl uGl yI l eGl uThr MetAl aP roGl ySer Al aAspAr

1703 GGAAGTTCGTGGACACGACCTCCGACCACTCGGCGTACAGCTCGTCCAGGCCGCGCACCCACACCCAGGCCAGG

86 gPheAsnThr Ser Val Val Gl uSer T rpGl uAl aTyrLeuGl uAspLeuGl yArgVal T rpVal T rpAl aLeuT

SgrAI (1842)

1777 GTGTTGTCCGGCACCACCTGGTCTGACCAGCGCTGATGAACAGGGTCACGTCGTCCTCCGGACACACCCGGCGAA

61 hrAsnAspP roVal Val Gl nAspGl nValAl aSer I l ePheLeuThr ValAspAspArgVal Val Gl yAl aPhe

1851 GTCGTCCTCCACGAAGTCCCGGAGAACCCGAGCCGGTCCGTCAGAACTCGACCGCTCCGGCGACGTCGCGCG

37 AspAspGl uVal PheAspArgSer PheGl yLeuArgAspThr T rpPheGl uValAl aGl yAl aValAspArgAl

1925 CGGTGAGCACCGAACGGCACTGGTCAACTTGCCATGATGGCTCCTCCTGTGAGGAGAGAAAGAGAAGAAGG

12 aThr LeuVal P roValAl aSer Thr LeuLysAl aMet

1999 TTAGTACAATTGCTATAGTGAGTTGTATTATACTATGCAGATATACTATGCCAATGATTAATTGTCAAAGTAGG

2073 GCTGCAGGTTAATTAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTG

2147 GCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCC

2221 GACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCGCTCTCCTGTTCCGACCCTGCCGC
2295 TTACCGGATACCTGTCCGCCTTTCTCCCTTCGGGAAGCGTGCGCTTTCTCATAGCTCACGCTGTAGGTATCTC
2369 AGTTCGGTGTAGGTCGTTGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTGAGCCGACCGCTGCGCCTT
2443 ATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACA
2517 GGATTAGCAGAGCGAGGTATGTAGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGA
2591 AGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGG
2665 CAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGAAGCAGCAGATTACGCGCAGAAAAAAGGATCTC
2739 AAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGAACGAAAACCTCACGTTAAGGGATTTTGGTC
2813 ATGGCTAGTTAATTAACATTTAAATCA